



2081.0 - Australians' journeys through life: Stories from the Australian Census Longitudinal Dataset, ACLD

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Summary

Introduction

INTRODUCTION

The Census of Population and Housing is conducted every five years to measure the number of people and dwellings in Australia on Census Night. The Census also provides information on the key characteristics of people and dwellings for small geographic areas and small population groups.

The Australian Census Longitudinal Dataset (ACLD) uses data from the Census of Population and Housing to build a rich longitudinal picture of Australian society. The ACLD can uncover new insights into the dynamics and transitions that drive social and economic change over time, and how these vary for diverse population groups and geographies.

The ACLD is a random 5% sample of the Australian population and three waves of data have so far contributed to the ACLD from the 2006 Census (Wave 1), 2011 Census (Wave 2) and 2016 Census (Wave 3).

As information from subsequent Censuses are added to the ACLD, its value as a resource for longitudinal studies of the Australian population will continue to increase.

For more information about the ACLD, refer to Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0).

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ACLD 2011-2016

PRODUCT OVERVIEW

In this release of the 2011-2016 ACLD, a representative sample of over 1.2 million records from the 2011 Census (Wave 2) was brought together with corresponding records from the 2016 Census (Wave 3) to form the 2011 Panel of the ACLD. The 2011 Panel includes new births and migrants since the 2006 Census, and is a rich source for exploring how Australian society has changed between the 2011 and 2016 Censuses.

A future release of the 2016 ACLD will include additional data items on the 2011 Panel, as well as an updated 2006 Panel consisting of a linked sample between the 2006, 2011 and 2016 Censuses.

Note: While the 2011 and 2016 Censuses were predominantly the same, there were some minor differences. For example, a number of changes were made to how industry of employment information was collected for the 2016 Census. The ABS advises this data is not directly comparable to 2011 industry data and should not be used to measure longitudinal transitions. For further information refer to Industry of Employment (INDP) in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0).

Users are also encouraged to read Understanding the data pages in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0) for information to assist with using and interpreting specific data items across time.

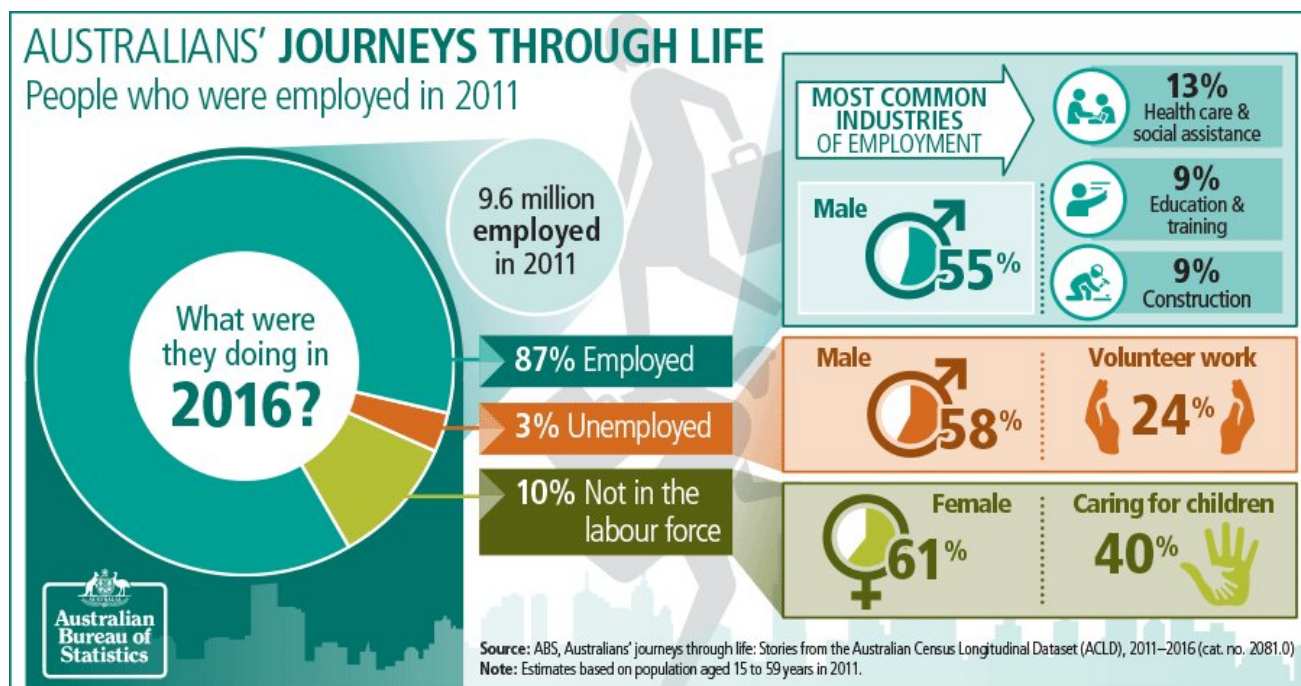
For more information about the ACLD, refer to Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0).

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Employed in 2011: In 2016 they were...

PEOPLE WHO WERE EMPLOYED IN 2011: WHAT WERE THEY DOING IN 2016?



9.6 million people were employed in 2011.

What were they doing in 2016?

- 87% were employed
- 3% were unemployed, and
- 10% were not in the labour force.

For those who were employed in 2016:

- the most common industries of employment were Health care and social assistance (13%), Education and training (9%) and Construction (9%), and
- 55% were male.

For those who were unemployed in 2016:

- 58% were male, and
- 24% had done volunteer work for an organisation or group in the last 12 months.

For those who were not in the labour force in 2016:

- 61% were female, and
- 40% were caring for children.

Source: ABS, Australians' journeys through life: Stories from the Australian Census Longitudinal Dataset (ACLD), 2011-2016 (cat. no. 2081.0).

Note: Estimates based on population aged 15 to 59 years in 2011.

Employed in 2011: Interactive Map

EMPLOYED PEOPLE IN 2011 USUAL RESIDENCE AND LABOUR FORCE TRANSITIONS IN 2016

This map is sourced from the 2011-2016 Australian Census Longitudinal Dataset (ACLD).

How to use the map

- Select a 2011 starting region, either a 'Greater capital city' or 'Rest of state', from one of the 15 map options below.
- The map will display the usual residence of those people in 2016.

- Each 2016 region is represented by a pie chart, and shows the proportion who were employed, unemployed or not in the labour force (NILF) in 2016.
- Click on a pie chart for more information.

Example

- Select the starting region of Rest of WA (map 10). These are the people who were employed in 2011 and were living in* the Rest of WA.
- The map shows where these people were living in 2016.
- The pie chart surrounded by a white circle highlights the starting region, and shows a large number were again living in the Rest of WA.
- Each pie chart shows a proportional wedge for their labour force status in 2016. For example, the dark green segment in the Rest of WA pie chart shows that a large proportion were employed in 2016.
- Click on the pie chart to see that 86% of those who were living in the Rest of WA again in 2016 were employed in 2016, while 3% were unemployed in 2016.
- Click on the Rest of Vic. pie chart. This shows that 1,423 people who were employed and living in Rest of WA in 2011, were living in the Rest of Vic. in 2016. 70% of them were employed.

* living in = usual residence. For further information, see Census of Population and Housing: Census Dictionary (cat. no. 2901.0).

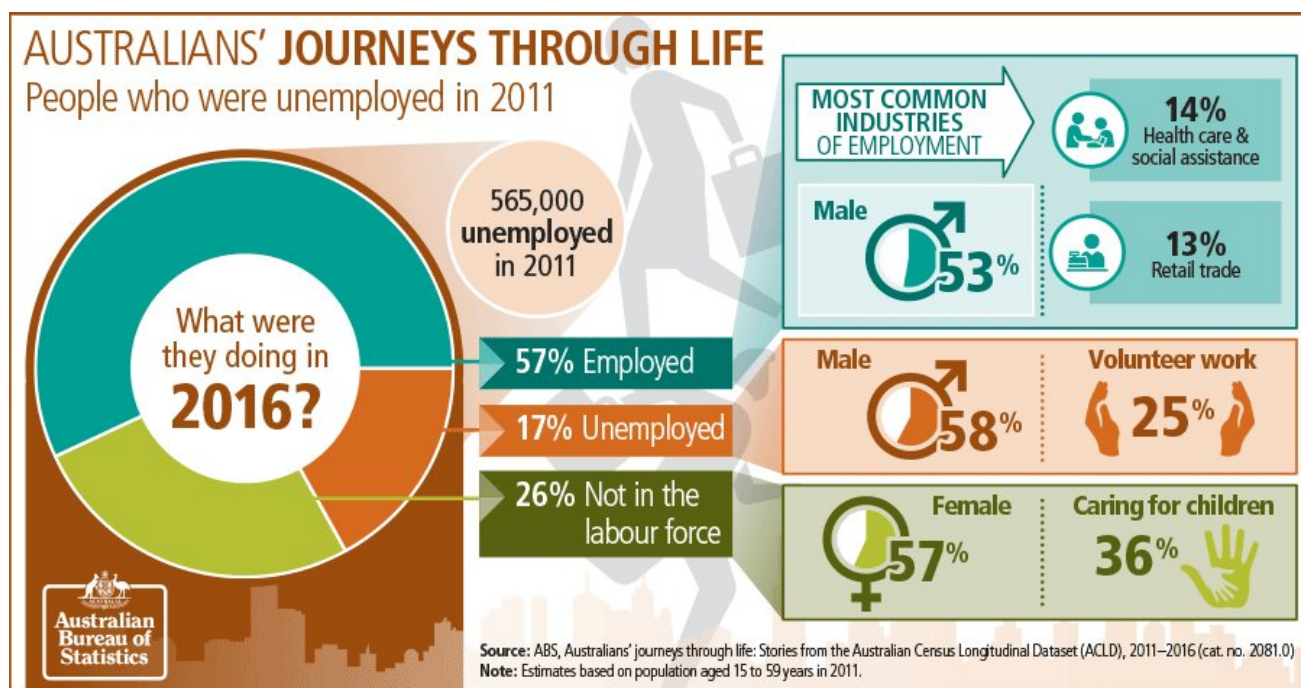


More information:

- The size of the pie chart is relative to the size of the population.
- The information is based on Greater Capital City Statistical Area (GCCSA) geography, Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.55.001).
- The data excludes people whose labour force status was not stated in 2011 and/or in 2016. More information on labour force status is available in Census of Population and Housing: Census Dictionary, 2016 (cat. no. 2901.0)
- The reference periods are August 2011 and August 2016.
- 'Rest of...' locations include Migratory-Offshore-Shipping and No Usual Address for each state. For more information refer to Special purpose codes in Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.55.001).
- If the maps do not load successfully, please try refreshing this page.
- Detailed results are available in the Downloads tab.

Unemployed in 2011: In 2016 they were...

PEOPLE WHO WERE UNEMPLOYED IN 2011: WHAT WERE THEY DOING IN 2016?



565,000 people were unemployed in 2011.

What were they doing in 2016?

- 57% were employed
- 17% were unemployed, and
- 26% were not in the labour force.

For those who were employed in 2016:

- the most common industries of employment were Health care and social assistance (14%) and Retail trade (13%), and
- 53% were male.

For those who were unemployed in 2016:

- 58% were male, and
- 25% had done volunteer work for an organisation or group in the last 12 months.

For those who were not in the labour force in 2016:

- 57% were female, and
- 36% were caring for children.

Source: ABS, Australians' journeys through life: Stories from the Australian Census Longitudinal Dataset (ACLD), 2011-2016 (cat. no. 2081.0).

Note: Estimates based on population aged 15 to 59 years in 2011.

Unemployed in 2011: Interactive Map

UNEMPLOYED PEOPLE IN 2011 USUAL RESIDENCE AND LABOUR FORCE TRANSITIONS IN 2016

This map is sourced from the 2011-2016 Australian Census Longitudinal Dataset (ACLD).

How to use the map

- Select a 2011 starting region, either a 'Greater capital city' or 'Rest of state', from one of the 15 map options below.

- The map will display the usual residence region for those people in 2016.
- Each 2016 region is represented by a pie chart, and shows the proportion who were employed, unemployed or not in the labour force (NILF) in 2016.
- Click on a pie chart for more information.

Example

- Select the starting region of Greater Melbourne (map 3). These are the people who were unemployed in 2011 and were living in* Greater Melbourne.
- The map shows where these people were living in 2016.
- The pie chart surrounded by a white circle highlights the starting region, and shows a large number were again living in Greater Melbourne.
- Each pie chart shows a proportional wedge for their labour force status in 2016. For example, the dark green segment in the Greater Melbourne pie chart shows that a large proportion were employed in 2016.
- Click on the pie chart to see that 61% of those who were living in Greater Melbourne again in 2016 were employed in 2016, while 14% were unemployed in 2016.
- Click on the Greater Brisbane pie chart. This shows that 904 people who were unemployed and living in Greater Melbourne in 2011, were living in Greater Brisbane in 2016. 54% of them were employed.

* living in = usual residence. For further information, see Census of Population and Housing: Census Dictionary (cat. no. 2901.0).

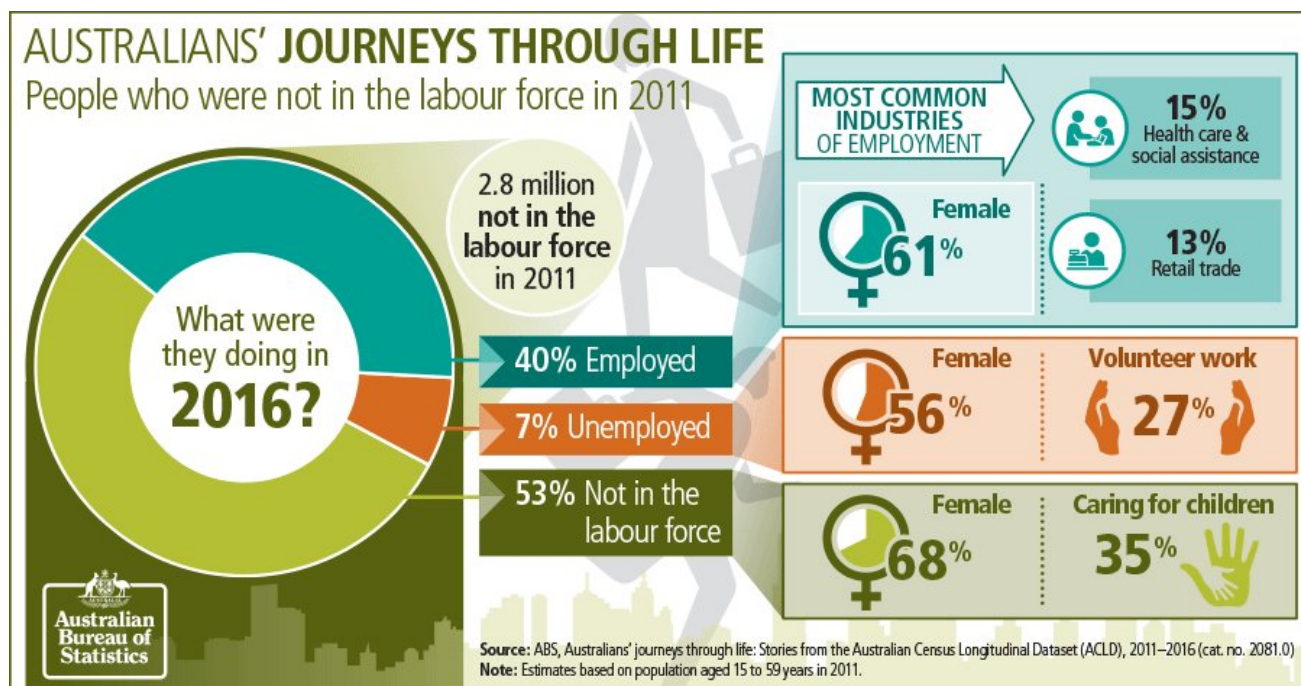


More information

- The size of the pie chart is relative to the size of the population.
- The information is based on Greater Capital City Statistical Area (GCCSA) geography, Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.55.001).
- The data excludes people whose labour force status was not stated in 2011 and/or in 2016. More information on labour force status is available in Census of Population and Housing: Census Dictionary, 2016 (cat. no. 2901.0)
- The reference periods are August 2011 and August 2016.
- 'Rest of...' locations include Migratory-Offshore-Shipping and No Usual Address for each state. For more information refer to Special purpose codes in Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.55.001).
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Not in the labour force in 2011: In 2016 they were...

PEOPLE WHO WERE NOT IN THE LABOUR FORCE IN 2011: WHAT WERE THEY DOING IN 2016?



2.8 million people were not in the labour force in 2011.

What were they doing in 2016?

- 40% were employed
- 7% were unemployed, and
- 53% were not in the labour force.

For those who were employed in 2016:

- the most common industries of employment were Health care and social assistance (15%) and Retail trade (13%), and
- 61% were female.

For those who were unemployed in 2016:

- 56% were female, and
- 27% had done volunteer work for an organisation or group in the last 12 months.

For those who were not in the labour force in 2016:

- 68% were female, and
- 35% were caring for children.

Source: ABS, Australians' journeys through life: Stories from the Australian Census Longitudinal Dataset (ACLD), 2011–2016 (cat. no. 2081.0).

Note: Estimates based on population aged 15 to 59 years in 2011.

Not in the labour force in 2011: Interactive Map

PEOPLE NOT IN THE LABOUR FORCE IN 2011 USUAL RESIDENCE AND LABOUR FORCE TRANSITIONS IN 2016

This map is sourced from the 2011–2016 Australian Census Longitudinal Dataset (ACLD).

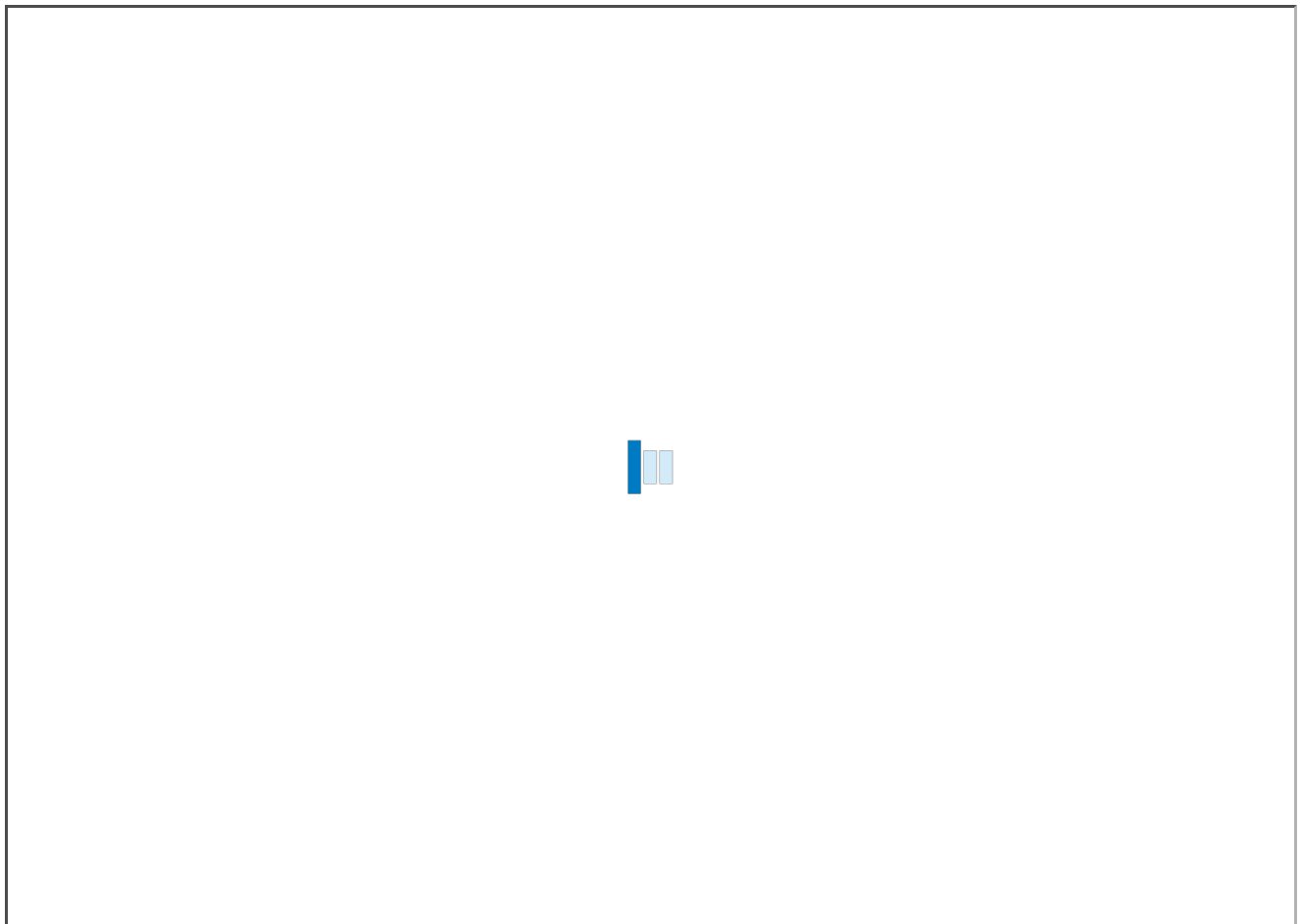
How to use the map

- Select a 2011 starting region, either a 'Greater capital city' or 'Rest of state', from one of the 15 map options below.
- The map will display the usual residence of those people in 2016.
- Each 2016 region is represented by a pie chart, and shows the proportion who were employed, unemployed or not in the labour force (NILF) in 2016.
- Click on a pie chart for more information.

Example

- Select the starting region of Australian Capital Territory (ACT, map 15). These are the people who were not in the labour force in 2011 and were living in* the ACT.
- The map shows where these people were living in 2016.
- The pie chart surrounded by a white circle highlights the starting region, and shows a large number were again living in the ACT.
- Each pie chart shows a proportional wedge for their labour force status in 2016. For example, the dark green segment in the ACT pie chart shows that about half were employed in 2016.
- Click on the pie chart to see that 45% of those who were living in the ACT again in 2016 were employed in 2016, while 7% were unemployed in 2016.
- Click on the Greater Adelaide pie chart. This shows that 283 people who were not in the labour force and living in the ACT in 2011, were living in Greater Adelaide in 2016. 40% of them were employed.

* living in = usual residence. For further information, see Census of Population and Housing: Census Dictionary (cat. no. 2901.0).



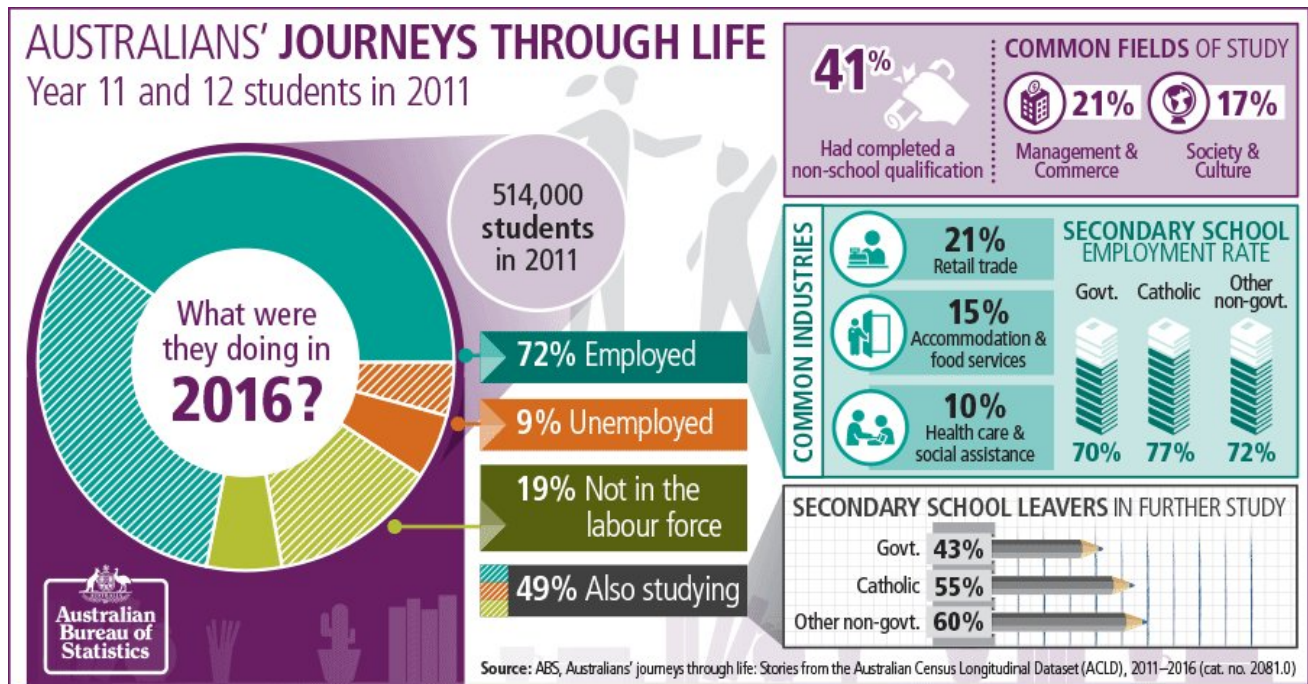
More information

- The size of the pie chart is relative to the size of the population.
- The information is based on Greater Capital City Statistical Area (GCCSA) geography, Australian Statistical Geography Standard (ASGS): Volume 1 - Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.55.001).
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- Detailed results are available in the Downloads tab.

Year 11 and 12 students in 2011: In 2016 they were...

YEAR 11 AND 12 STUDENTS IN 2011: WHAT WERE THEY DOING IN 2016?



There were 514,000 students in Year 11 and 12 in 2011.

What were they doing in 2016?

- 72% were employed
- 9% were unemployed, and
- 19% were not in the labour force.
- Forty-one percent had completed a non-school qualification. Common fields of study were Management and Commerce (21% of those with a qualification) and Society and Culture (17%).

For those who were employed in 2016:

- common industries of employment were Retail trade (21%), Accommodation and food services (15%) and Health care and social assistance (10%), and
- the employment rate for those who attended a government secondary school was 70%, a catholic secondary school was 77%, and other non-government secondary schools was 72%.

Forty-nine per cent were also studying in 2016:

- 43% of those who attended a government secondary school were in further study in 2016,
- 55% of those who attended a catholic secondary school were in further study in 2016, and
- 60% of those who attended other non-government secondary schools were in further study in 2016.

Source: ABS, Australians' journeys through life: Stories from the Australian Census Longitudinal Dataset (ACLSD), 2011–2016 (cat. no. 2081.0).

ACLSD 2006-2011

PRODUCT OVERVIEW

In this release of the 2006-2011 ACLSD, a representative 5% sample of almost one million records from the 2006 Census (Wave 1) was brought together with corresponding records from the 2011 Census (Wave 2) to create a research tool for exploring how Australian society is changing over time. In taking a longitudinal view of Australians, the ACLSD may uncover new insights into the dynamics and transitions that drive social and economic change over time, conveying how these vary for diverse population groups and geographies.

This product was first released in December 2013. A future release of the ACLD will include additional data items on the 2011 Panel, as well as an updated 2006 Panel consisting of a linked sample between the 2006, 2011 and 2016 Censuses. The addition of corresponding information from the 2016 Census (Wave 3) will expand our understanding of the dynamics and transitions that have been driving change in Australia since the 2006 Census.

For more information about the ACLD, refer to Microdata: Australian Longitudinal Census Dataset (cat. no. 2080.0).

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Selected analysis

SELECTED ANALYSIS

The aim of the Census, from the very beginning, has been to help us to acquire the 'knowledge of ourselves' needed to advance our nation (Knibbs, 1911). Since 1911, the Census has informed policy and decision making in Australia; providing a five-yearly self-portrait, allowing Australians to study small parts of our nation in detail or to step back to focus on the big picture of Australia and Australians' journeys through life.

The Australian Census Longitudinal Dataset (ACLD) builds on this rich history and significantly enhances the evidence base that can be drawn from the Census. The ACLD is a longitudinal dataset in which a sample of records from the 2006 Census are linked to records from the 2011 Census. The ACLD, which is based on a sample of about one million records, is Australia's largest longitudinal dataset.

In taking a 'longitudinal' view of the journeys of individuals, the ACLD will uncover new insights into the dynamics and transitions that drive social and economic change over time, as well as providing insights into how these vary for diverse population groups and geographies.

The initial release of the ACLD follows the journeys of around one million people across the 2006 and 2011 Censuses. As more waves of Census data are added to the ACLD in the future, the power of the dataset to enable governments and researchers to better understand changes in society will only increase, providing a significant and enduring return on the investment that is made in each five-yearly Census.

This article, the first in a series of articles analysing and demonstrating ACLD data, gives just a small glimpse of the type and range of information that the ACLD can provide and focuses on a number of key questions:

- how has peoples' labour force status changed?
- have employed people changed industries?
- are school leavers continuing on to further study and/or moving into the workforce?
- how many people are taking up, continuing or ceasing providing unpaid care for others?
- how many people are taking up, continuing or ceasing volunteering?
- has there been a change in English proficiency for recent migrants?

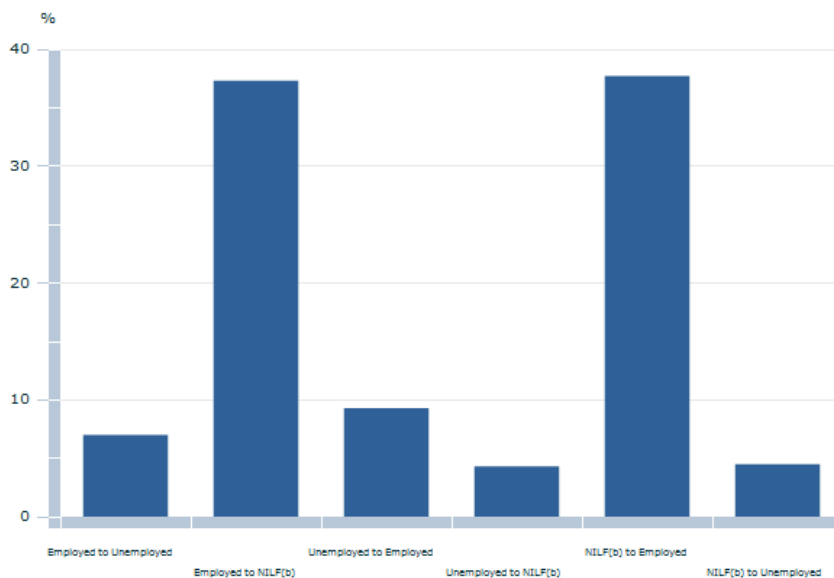
The point in time data presented in this article are sourced from either the 2006 or 2011 Census. The estimates of transitions between 2006 and 2011 are sourced from the ACLD.

How did peoples' labour force status and industry change?

Between 2006 and 2011, the number of Australians aged 15 years and over increased from 15.9 to 17.4 million. Almost four-fifths (78%) of people in this age group in 2006 had the same labour force status in 2006 and 2011. Of the Australians who had the same labour force status, more than two-thirds (68%) were employed in both years, while almost 31% were not in the labour force and less than 1% were unemployed.

Most Australians whose labour force status had changed had moved from either not being in the labour force to being employed (38% of people who changed labour force status between 2006 and 2011), or from employment to not in the labour force (37% of people who changed labour force status between 2006 and 2011) (Graph 1). These transitions tended to be experienced by either younger or older people. Just over one-third (34%) of Australians who transitioned from not in the labour force into employment were aged 15-19 years in 2006, while just under one-third (33%) of people who transitioned from employment into not in the labour force were aged 55-64 years in 2006.

1. CHANGES IN LABOUR FORCE STATUS(a), People who changed labour force status between 2006 and 2011



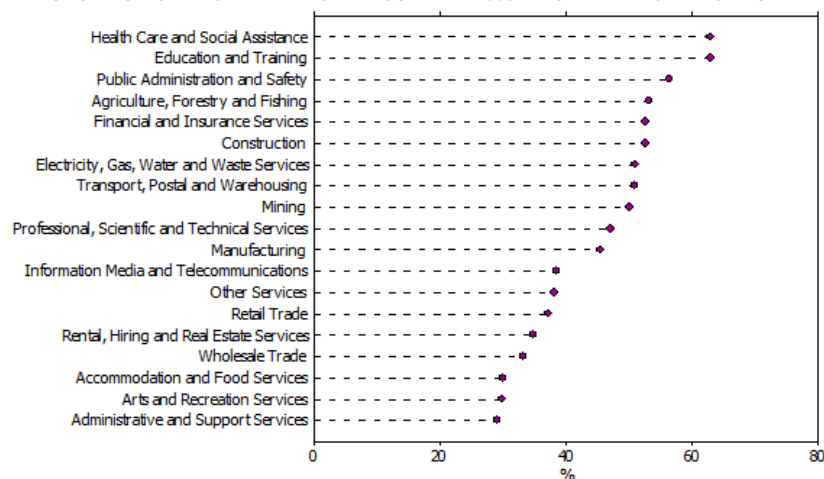
Change in Labour Force Status from 2006 to 2011

Footnote: (a) Excludes people where labour force status was not stated in either 2006 or 2011. (b) Not in the Labour Force.
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

The industry composition of Australia's workforce continues to change. In addition, different industries have experienced different rates of staff retention. The ACLD allows us to look at people in each industry in 2006 and whether they were in the same industry in 2011.

The Health care and social assistance and Education and training industries had the highest staff retention rates, with almost two-thirds (63%) of people working in these industries in 2006 working in the same industry in 2011. In contrast, the Administrative and support services (29%), Arts and recreation services (30%) and Accommodation and food services (30%) industries had the lowest staff retention rates. The Mining industry had a 50% retention rate, while it was 45% for Manufacturing and 37% for Retail trade.

2. PROPORTION OF PEOPLE IN EACH INDUSTRY IN 2006 WHO WERE WORKING IN SAME INDUSTRY IN 2011(a)(b)



Footnote: (a) As a proportion of people working in the industry in 2006. (b) Excludes people where industry was not stated in either 2006 or 2011.
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

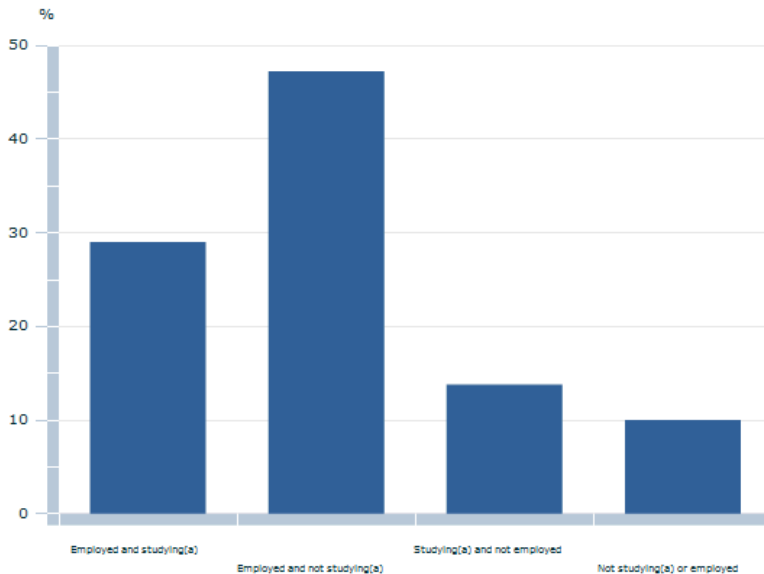
Are school leavers still studying or working?

In 2006, there were 450,000 Australians who were enrolled in Year 11 or Year 12 (that is, they had completed Year 10 and were enrolled in a secondary school, including high school, secondary college or senior high school).

In 2011, almost half (47%) of this group had moved into employment and were not undertaking study at a higher education institution (Technical or Further Educational Institution, TAFE College, University or other Tertiary Institution). More than half (56%) of these people had obtained a non-school qualification between 2006 and 2011.

About 29% of those who had been enrolled in Year 11 or 12 in 2006 were combining work and study at a higher education institution in 2011. A further 14% were studying at a higher education institution but not working, and 10% were not working or studying.

3. EMPLOYED AND/OR UNDERTAKING HIGHER STUDIES(a) IN 2011(b), People who were enrolled in Year 11 or 12 in 2006



Labour force and study status in 2011

Footnote: (a) Study at higher education institutions, including Technical or Further Educational Institutions (including TAFE Colleges), Universities and other Tertiary Institutions. (b) Excludes people where labour force status or education status was not stated in either 2006 or 2011.

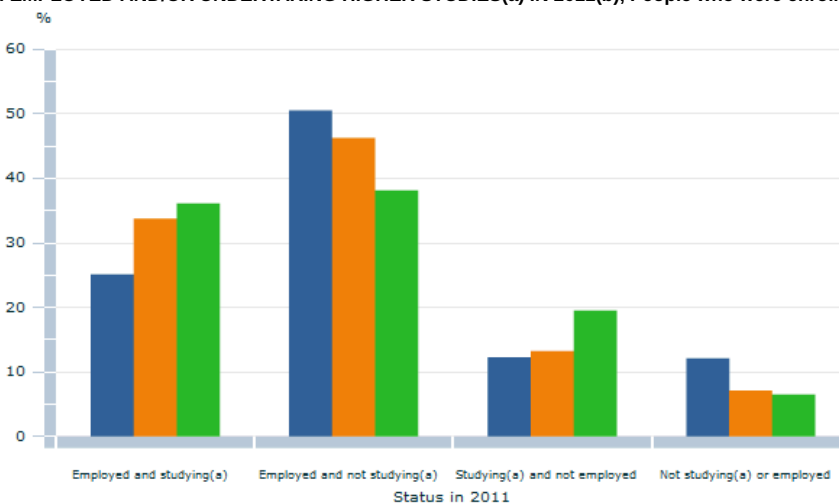
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Of the Australians who were studying in Year 11 or 12 in 2006, 60% were enrolled at Government schools, 22% were in Catholic schools and 18% were in other non-Government schools. Graph 4 shows that their study and employment status in 2011 varied according to the type of school in which they had been enrolled in 2006.

A greater proportion of Catholic or other non-Government school leavers were combining study at a higher educational institution with work in 2011 compared to Government school leavers. Government school leavers were more likely to be either employed and not studying, or neither studying at higher educational institutions nor employed.

School leavers from non-Government schools (other than Catholic schools) were more likely than Government or Catholic school leavers to be studying at a higher education institution but not working.

4. EMPLOYED AND/OR UNDERTAKING HIGHER STUDIES(a) IN 2011(b), People who were enrolled in Year 11 or 12 in 2006 - by School type in 2006



Year 11 or 12 in Government secondary school in 2006

Year 11 or 12 in Catholic secondary school in 2006

Year 11 or 12 in other non-Government secondary school in 2006

Footnote: (a) Study at higher education institutions, including Technical or Further Educational Institutions (including TAFE Colleges), Universities and other Tertiary Institutions. (b) Excludes people where labour force status or education status was not stated in either 2006 or 2011.

Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

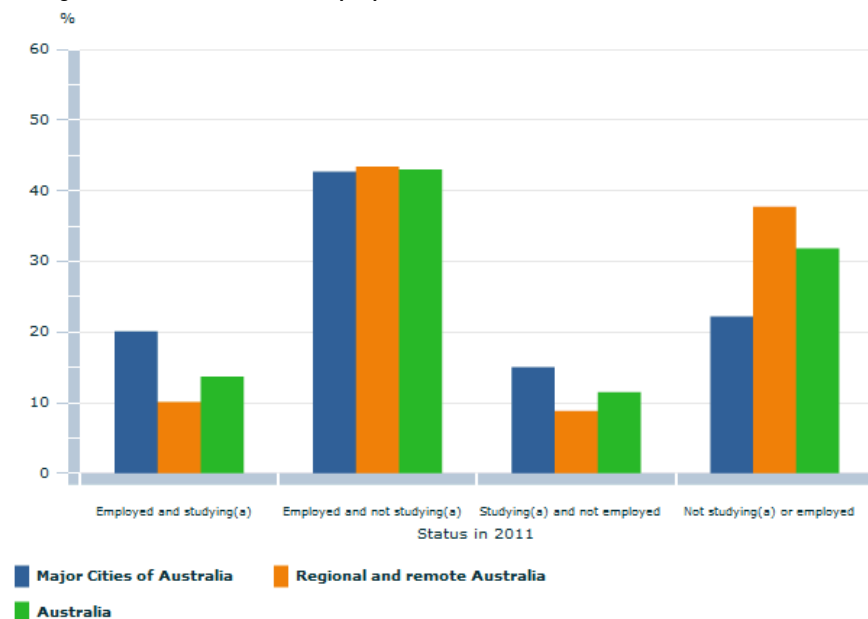
In 2006, there were 11,000 Aboriginal and Torres Strait Islander students who were enrolled in Year 11 or Year 12 (that is, they had completed Year 10 and were enrolled in a secondary school, including high school, secondary college or senior high school).

About 43% of this group had moved into employment and were not undertaking study at a higher education institution in 2011, while 14% were combining work with study at a higher education institution. Just under one-third (32%) were neither studying (at higher a education institution) nor employed in 2011. Aboriginal and Torres Strait Islander students living in major cities were more likely to be employed and studying at a higher education institution in 2011, and less likely to be neither studying nor

employed, than those who were in regional or remote areas.

Half the Aboriginal and Torres Strait Islander students who were enrolled in Year 11 or 12 in 2006 but who were not studying at a higher education institution or employed in 2011, had completed Year 12.

5. EMPLOYED AND/OR UNDERTAKING HIGHER STUDIES(a) IN 2011(b), People who were enrolled in Year 11 or 12 in 2006 - by Remoteness: Aboriginal and Torres Strait Islander peoples

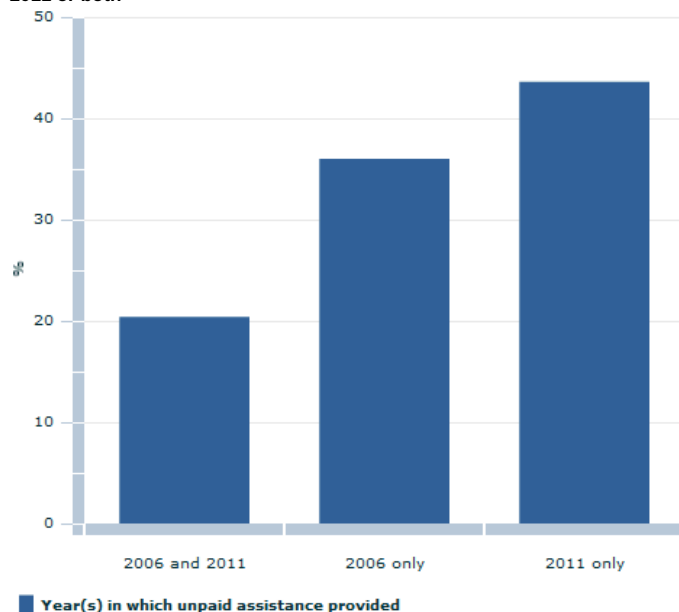


Footnote: (a) Study at higher education institutions, including Technical or Further Educational Institutions (including TAFE Colleges), Universities and other Tertiary Institutions. (b) Excludes people where labour force status or education status was not stated in either 2006 or 2011.
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Who continued to provide unpaid assistance?

The number of Australians who provided unpaid assistance to a person with a disability, long term illness or problems relating to old age rose from 1.6 million to 1.9 million between 2006 and 2011 (from 11% to 12% of the population aged 15 years and over). Graph 6 shows that of all people who provided unpaid assistance in either 2006 or 2011 (or both), just over 20% provided unpaid assistance in both years.

6. PEOPLE WHO PROVIDED UNPAID ASSISTANCE IN 2006 AND/OR 2011(a), As a proportion of all people who provided unpaid assistance in 2006, 2011 or both

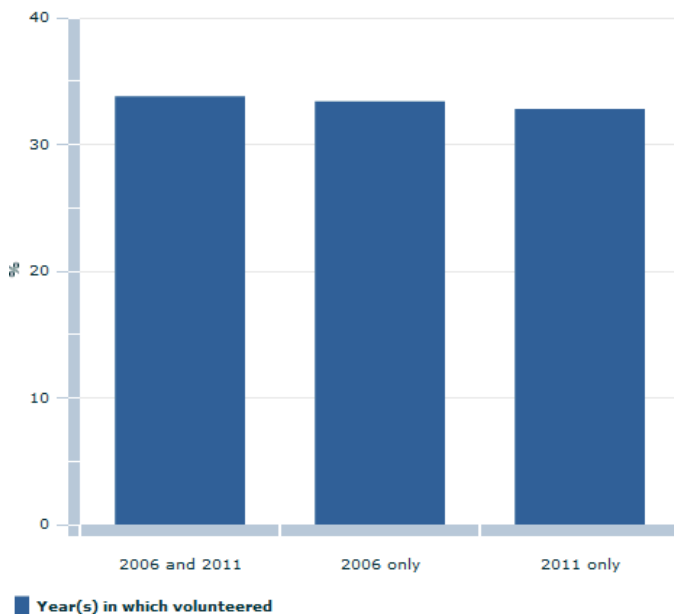


Footnote(s): (a) Excludes people where it was not stated if they provided unpaid assistance in either 2006 or 2011.
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Who continued to volunteer?

The volunteering rate remained relatively steady between 2006 and 2011, at around one-fifth of the adult population in both years. However, this apparent stability in the rate disguises the fact that a large number of Australians have moved into and out of volunteering. Graph 7 shows that just over one-third of Australians who volunteered did so in both 2006 and 2011, one-third volunteered in 2006 but not in 2011 and just under one-third volunteered in 2011 but not 2006.

7. PEOPLE WHO VOLUNTEERED IN 2006 AND/OR 2011(a), As a proportion of all people who volunteered in 2006, 2011 or both



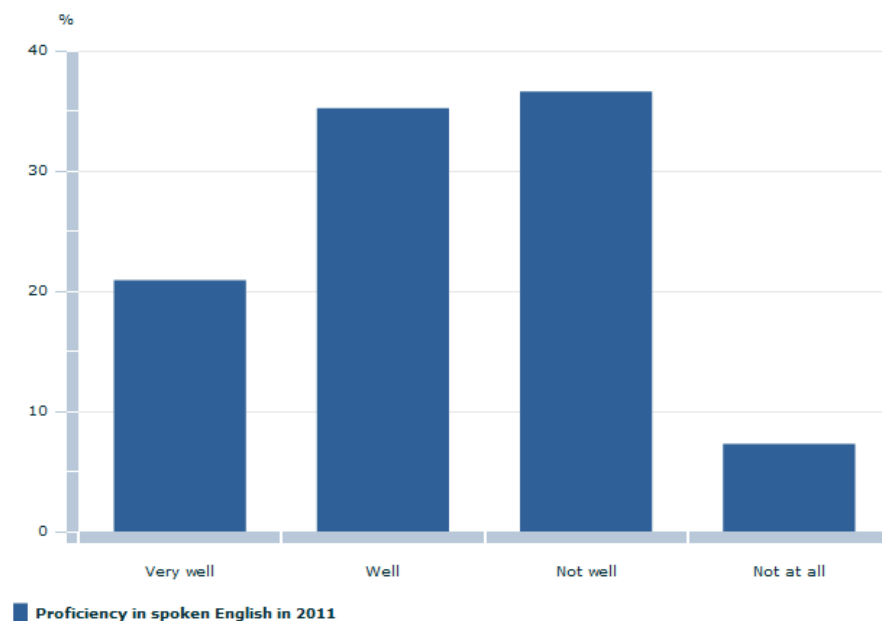
Footnote(s): (a) Excludes people where it was not stated if they volunteered in either 2006 or 2011.
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Is the English proficiency of recent migrants improving?

Migrants represent a large proportion of Australia's population: in 2011, 5.3 million Australians (approximately 1 in 4) were born overseas. One difficulty that many migrants face when moving to Australia is having limited spoken English language skills. The ACLD allows us to look at how recently arrived migrants have fared, in this example by looking at how they have developed their English language skills over the 5 years between the 2006 and 2011 Censuses.

In 2006, one-fifth of people born overseas who had arrived in Australia between 2001 and 2006 spoke English not well or not at all. However, by 2011, 56% of these people spoke English well or very well. People for whom English proficiency remained at the 'not at all' level between 2006 and 2011 were more likely to be older (aged 55 and over).

8. OVERSEAS MIGRANTS WHO ARRIVED IN AUSTRALIA BETWEEN 2001 AND 2006(a), Proficiency in spoken English in 2011, As a proportion of all people who spoke English 'Not well' or 'Not at all' in 2006



Footnote(s): (a) Excludes people where level of English proficiency was not stated in either 2006 or 2011.
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Where to from here?

This article has provided just a few brief insights into the types of analyses that can be undertaken using the ACLD.

The ACLD is now available in ABS TableBuilder from Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0). ABS TableBuilder allows users to build their own customised tables to undertake further analysis and research. As future waves of data are added from future Censuses, the ACLD will become an even richer resource and allow further exploration of the numerous and complex journeys that make up peoples' lives.

Housing transitions for older Australians

HOUSING TRANSITIONS FOR OLDER AUSTRALIANS

Australia's population is ageing, influenced by general trends of increasing life expectancy and declining fertility. In the 2006 Census, there were 2.6 million people (or 13% of the population) aged 65 years and over living in Australia. By the 2011 Census, this had grown to over 3 million people (or 14% of the population). This trend is expected to continue with those people aged over 65 years projected to make up 19% of Australia's population by 2031¹.

As people age, they experience changes in their levels of physical and economic independence. This may lead to changes in their living arrangements and social accommodation needs. Using longitudinal Census data, this article looks at the journeys of older Australians who were aged 65 years and older in 2006, exploring their housing transitions between the 2006 and 2011 Censuses.

The Australian Census Longitudinal Dataset (ACLD) is a 5% random sample from the 2006 Census which has been linked to corresponding records from the 2011 Census. Whilst Census data allows us to observe the changes across a cohort of older Australians, for example an increasing proportion of this group living in flats or units rather than separate houses, it provides little ability to directly understand the sub-group that were in separate houses in 2006 and were then in a flat or unit in 2011. This article aims to demonstrate the power of longitudinal Census data by examining the characteristics of older Australians in the housing market, including those who have moved or downsized, their household characteristics, and the types of dwellings and locations they preferred.

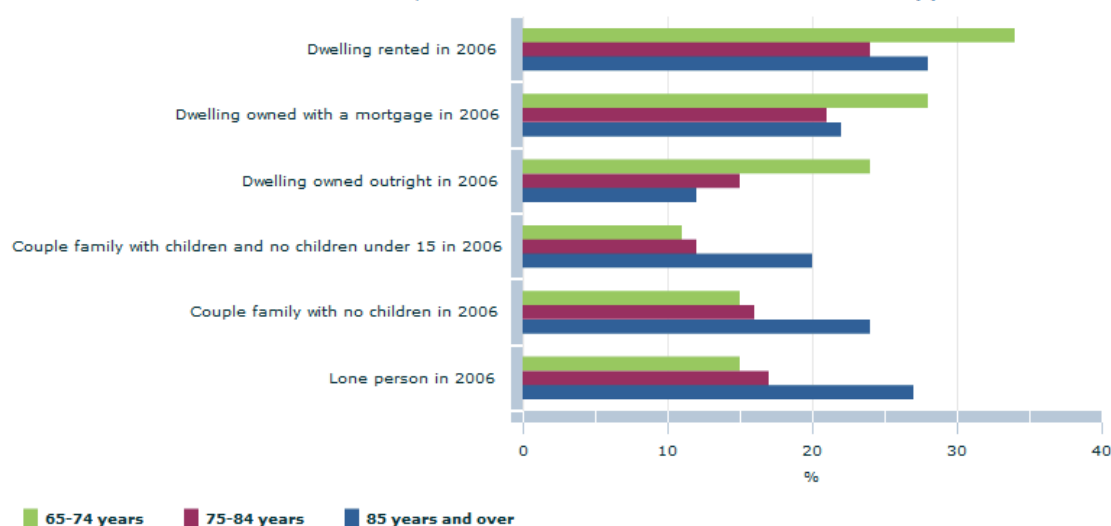
The point-in-time data presented in this article is sourced from either the 2006 or 2011 Census. The estimates of transitions between 2006 and 2011 are sourced from the ACLD. The ACLD was weighted so that linked records represent the population that was in scope of both the 2006 and 2011 Censuses. The ACLD has some limitations, including that the population excludes people overseas for either the 2006 or 2011 Censuses and people who died between the 2006 Census and 2011 Census (a more significant issue when analysing older Australians than some other cohorts). The ACLD also only represents two time points that are five years apart and thus does not reflect multiple changes that may occur within that time period. All longitudinal analysis in this article excludes people who were not enumerated at their place of usual residence in either 2006 or 2011 as the ACLD dwelling related data refers to the dwelling a person was counted in on Census night.

CHARACTERISTICS OF OLDER MOVERS

The housing choices of older Australians have an effect on the housing market in a number of ways. These effects include decisions to move houses to downsize, move location or move into dwellings specifically designed for older Australians such as nursing homes. However, according to the longitudinal Census data, older Australians were less than half as likely to have moved between 2006 and 2011 (16%) compared to the average for all other adults (38% of people aged 18 to 64). The proportion of older Australians who have moved is likely influenced by the high proportion who own their home outright. Typically people who own their home outright move less often than renters or those owning a home with a mortgage.

The graph below shows the characteristics of older people who moved between 2006 and 2011.

1. PROPORTION OF OLDER PEOPLE WHO MOVED, BY AGE GROUP IN 2006 AND SELECTED CHARACTERISTICS (a)



Footnote: (a) Excludes 'Not stated'.

Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Around 34% of people who were renting in 2006, and who were over the age of 85, moved between 2006 and 2011. This compares to 24% of renters aged between 75 and 84 years, and 28% of those aged between 65 and 74 years in 2006. Irrespective of sex, dwelling tenure, family composition or whether located in the capital city or not, those aged over 85 years in 2006 (over 90 years in 2011) were the most likely age group to have changed address between the 2006 and 2011 Census. This may be related to reasons such as ill health and moves from private dwellings to dwellings that include a level of care (e.g. nursing homes).

Older Australians who were living alone in 2006 were more likely to move than those living in couple relationships, while couple families living with their adult children were the least likely to move. Older Australians living outside of capital cities were more likely to have moved than those living in capital cities.

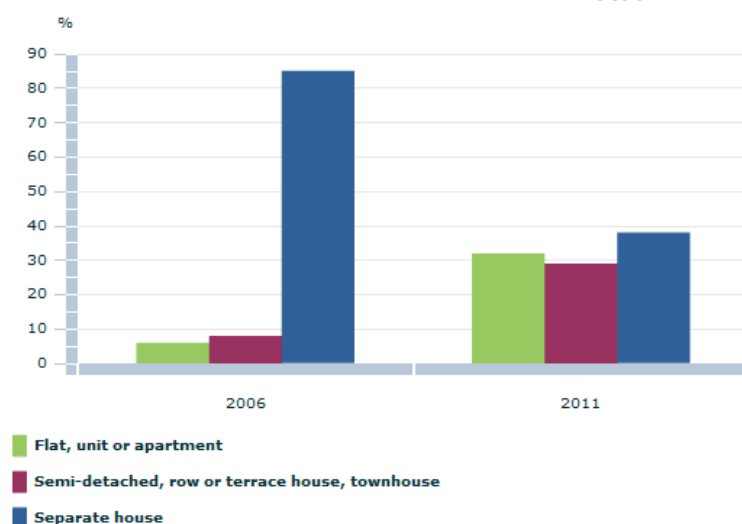
ARE OLDER AUSTRALIANS DOWNSIZING?

Key aspects of understanding the type of dwellings older Australians may require in the future include dwelling sizes, occupancy levels and whether older Australians downsize when they move house. Applying the Canadian National Occupancy Standard (CNOS) to the 2011 Census data found that 85% of older Australians (over 65 years) who lived in private dwellings had one or more spare bedrooms, which may be due to older people remaining in family homes following the departure of children.

Out of the older Australians who moved between 2006 and 2011, two out of every five (41%) moved to a dwelling with fewer bedrooms (excludes those not living in private dwellings or living in private dwelling with more than four bedrooms). Around three quarters of this group (76%) moved to a dwelling with exactly one less bedroom.

The graph below shows the changes in the types of dwellings occupied by Australians aged 65 years and over (in 2006) who downsized. Whilst the majority (85%) of downsizers lived in a separate house in 2006, more than half (60%) lived in a flat, unit, apartment, semi-detached, terrace or town house by 2011.

2. DWELLING STRUCTURE FOR OLDER 'DOWNSIZERS' IN 2006 AND 2011(a)(b)



Footnote: (a) 'Other dwellings' are included in the total. (b) Excludes 'Not stated'.

Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Whilst moving home may occur due to a wide range of life events, around 16% of downsizers had transitioned from a one family household in 2006 to a lone person household in 2011. This suggests that their move could be associated with an event such as family separation or being widowed.

HOUSING FOR THOSE THAT NEED ASSISTANCE

One of the anticipated planning challenges arising from an increase in the number of older Australians is the increased number of people requiring care and assistance with core activities (self-care, mobility and/or communication). This has implications for the number of care facilities, such as nursing homes and the support services that may be required to care for people with higher needs. We know from the longitudinal Census data that the median age of older people who had moved from a private dwelling to selected non-private dwellings (nursing homes or other cared accommodation for the aged) between 2006 and 2011 was 86 years in 2011.

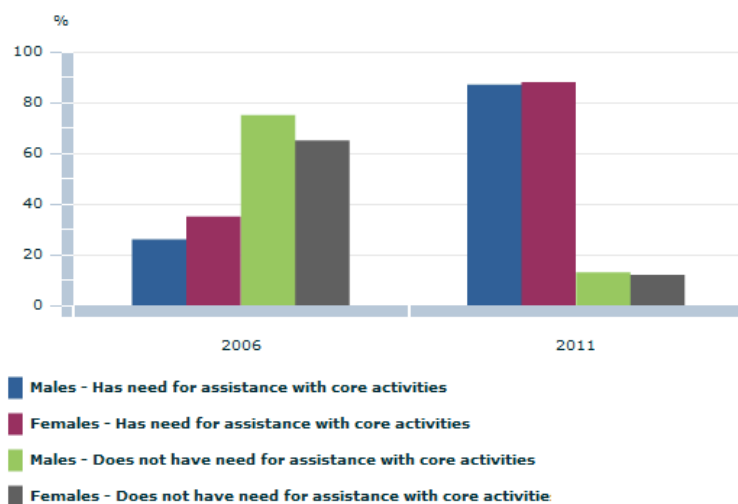
Around 250,000 older Australians living in private dwellings in 2006, reported a need for assistance with core activities in 2011 but not in 2006, and a quarter of this group moved between 2006 and 2011 (25%), a higher rate than for other older Australians. Of the 25% that reported a need for assistance in 2011 but not in 2006 and moved, around 33,000 moved to another private dwelling, whilst 29,000 moved into a selected non-private dwelling.

In total, 54,000 older Australians moved into a selected non-private dwelling between 2006 and 2011. This includes people whose reported need for assistance did not change or was not stated. Women made up around 70% of movers into selected non-private dwellings.

The following graph shows the proportion of older people that moved from a private dwelling to a selected non-private dwelling

between 2006 and 2011 and their reported need for assistance with core activities.

3. OLDER AUSTRALIANS WHO MOVED TO SELECTED NON-PRIVATE DWELLINGS BY REPORTED NEED FOR ASSISTANCE(a)(b)



Footnote: (a) Excludes 'Not stated'. (b) Selected non-private dwellings are nursing homes or other cared accommodation for the aged (not self-contained). Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

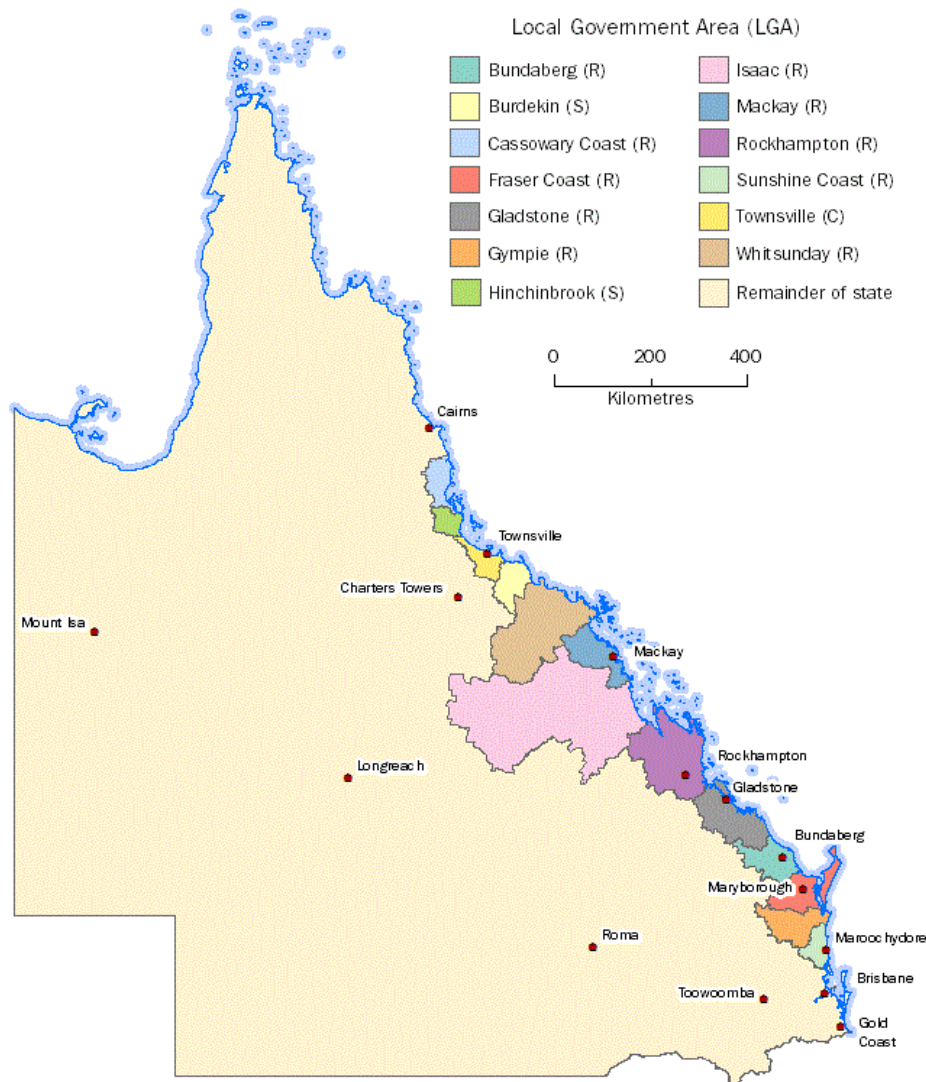
Of those older Australians who moved from a private dwelling into a selected non-private dwelling between 2006 and 2011, a much higher proportion reported a need for assistance with core activities in 2011 (87% of men and 88% of women) than they did in 2006 (26% of men and 35% of women), with over half (58%) of those that moved into a selected non-private dwelling having a reported core need for assistance in 2011 only.

SEA-CHANGE MOVES

In order to assist with planning adequate housing for older Australians, it is important to identify where older Australians have moved to. This is of particular importance to councils in regional areas that are seen as popular destinations for so called sea-change moves. These moves are characterised by people relocating permanently from major urban centres to a regional coastal destination for a change of lifestyle and have been linked with those leaving the workforce and entering retirement². Increased numbers of older Australians moving into an area is likely to increase demand for services, such as health care and home care. For this analysis, the population group has been extended to people aged 55 years and over to allow us to capture those whose move could be associated with retirement and to allow for more detailed analysis of specific regions.

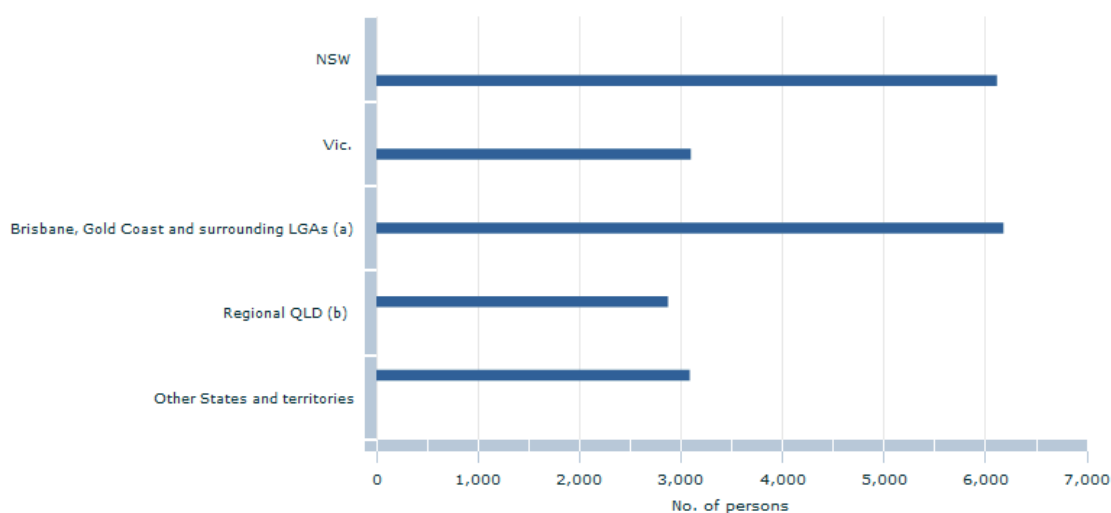
As an example of the potential impact of older sea-changers, this analysis considered people aged 55 years and over in 2006 who subsequently moved to selected coastal local government areas (LGAs) of Queensland (see map below). Of all the people who lived in the selected coastal LGAs in 2011 and had moved between 2006 and 2011, around 22,000 (44%) were sea change movers who had moved into the area from elsewhere, while around 27,000 (56%) moved within the area. Of the 22,000 movers who relocated to these areas from other locations in Australia, the bulk were moving from LGAs in or surrounding the major cities of Brisbane and the Gold Coast (6,200) or the state of NSW (6,100).

SELECTED COAST LOCAL GOVERNMENT AREAS OF QUEENSLAND



The graph below shows the number of older Australian's who moved to selected 'sea change' areas of the Queensland coast and their place of origin.

4. PERSONS AGED 55 YEARS AND OVER IN 2006 WHO MOVED TO A SELECTED COASTAL QLD LGA BY PLACE OF USUAL RESIDENCE IN 2006



Footnote: (a) Includes LGAs of Brisbane, Gold Coast, Ipswich, Morton Bay, Redland and Logan. (b) Includes all other LGAs in Queensland outside of Brisbane, Gold Coast, Ipswich, Morton Bay, Redland and Logan and the selected coastal local government areas.
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Around 70% of the sea-changers moved into separate houses. Almost half of these people moved into a separate house with 3 bedrooms. The sea-change moves were generally made by those in the younger end of the age range, with those between 55 to 64 in 2006 making up over 14,000 (or 67%) of the 22,000 movers.

Sea change moves are often associated with changes in people's employment circumstances, for example following retirement.

Amongst the 14,000 55-64 year old movers to selected coastal LGAs in QLD, 37% were employed in 2006 but were not in the labour force in 2011. This was higher than when compared to all 55-64 year olds in Australia, where 19% were employed in 2006 but were not in the labour force in 2011.

FURTHER INFORMATION

This article has explored a few examples of the types of analysis that are possible using linked Census data to explore the housing transitions of older Australians between 2006 and 2011.

The ACLD is now available in ABS TableBuilder, from Microdata: Australian Census Longitudinal Dataset (ABS cat. no. 2080.0). ABS TableBuilder allows users to build their own customised tables to undertake further analysis and research. Future waves of data will enrich this dataset further, enabling detailed exploration of the complex journeys and pathways of Australian lives.

FOOTNOTES

¹Data available in the ABS publication, Population Projections, Australia, 2012 (base) to 2101 (cat. no. 3222.0). Quoted projections refer to Series B data.

² ABS 2004a "Seachange - New Coastal Residents" in Australian Social Trends, 2004 (cat. No. 4102.0).

DEFINITIONS

Canadian National Occupancy Standard - The Canadian National Occupancy Standard for housing appropriateness is sensitive to both household size and composition. The measure assesses the bedroom requirements of a household by specifying that:

- there should be no more than two people per bedroom
- children less than 5 years of age of different sexes may reasonably share a bedroom
- children 5 years of age or older of opposite sex should have separate bedrooms
- children less than 18 years of age and of the same sex may reasonably share a bedroom, and
- single household members 18 years or over should have a separate bedroom, as should parents or couples.

Households living in dwellings where this standard cannot be met are considered to be overcrowded.

Capital City - Refers to Greater Capital City Statistical Areas as defined in the Australian Statistical Geography Standard (ASGS), 2011.

Downsizers - For the purposes of this article, downsizers are people who lived in a private dwelling with 4 bedrooms or less in both 2006 and 2011 who had at least 1 less bedroom in 2011 than they did in 2006. This definition excludes people who lived in a dwelling in the '5 bedrooms or more' categories in either 2006 or 2011 as the exact number of bedrooms in the dwelling is not known.

Not in the labour force - People not in the labour force are those people who, during the week prior to Census Night, were neither employed nor unemployed. They include people who were keeping house (unpaid), retired, voluntarily inactive, permanently unable to work, in gaol, trainee teachers, members of contemplative religious orders, and people whose only activity during the week prior to Census Night was jury service or unpaid voluntary work for a charitable organisation.

Need for Assistance with Core Activities - Measures the number of people who need assistance with the core activities of self-care, mobility and/or communication because of a disability or long term health condition lasting six months or more, or old age. This population is conceptually similar with the population of people with a profound or severe disability as collected in the Survey of Disability, Ageing and Carers (SDAC).

Private Landlord - Where the household pays rent to a real estate agent or other person not in the same household.

Retirement Village - Dwelling location containing accommodation for retired and aged people who care for themselves.

Selected Non-private Dwellings - A non-private dwelling is a dwelling or establishment that provides a communal or transitory type of accommodation or care. For the purposes of this article, in scope selected non-private dwellings were restricted to usual residents of nursing homes or other cared accommodation for the aged (not self-contained). Other non-private dwellings such as hotels, hostels, prisons, religious and charitable institutions, boarding schools, defence establishments and hospitals were excluded. Residents of self-contained dwellings in retirement villages are counted as residents of private dwellings.

Tenure - The nature of a unit's (i.e. household's, income unit's or person's) legal right to occupy the dwelling they usually reside in. Tenure is determined according to whether the unit owns the dwelling outright, owns the dwelling but has a mortgage or secured loan against it, is paying rent to live in the dwelling or has some other arrangement to occupy the dwelling.

ACLD 2006-11-16

PRODUCT OVERVIEW

The 2006-11-16 ACLD is a representative sample of almost one million records from the 2006 Census (Wave 1) brought together with corresponding records from the 2011 Census (Wave 2) and the 2016 Census (Wave 3).

The 2006 Panel sample of records was originally linked to the 2011 Census and released in 2013. In this release, the 2006 Panel has been re-linked to the 2011 Census to take advantage of improved linking methodology since the initial release, and has then been linked to records from the 2016 Census.

The 2006-11-16 ACLD product is recommended for analysis of the 2006-11 and 2006-11-16 longitudinal populations.

Note: While the 2011 and 2016 Censuses were predominantly the same, there were some minor differences. For example, a number of changes were made to how industry of employment information was collected for the 2016 Census. The ABS advises this data is not directly comparable to 2011 industry data and should not be used to measure longitudinal transitions. For further information refer to Industry of Employment (INDP) in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0).

Users are also encouraged to read Understanding the data pages in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0) for information to assist with using and interpreting specific data items across time.

INQUIRIES

For further information about these and related statistics, contact the National Information and Referral Service on 1300 135 070, or email client.services@abs.gov.au. The ABS Privacy Policy outlines how the ABS will handle any personal information that you provide to us.

Older Australians who continued working

OLDER AUSTRALIANS WHO CONTINUED WORKING

KEY INSIGHTS

- 45% of older Australians(1) who were employed in 2006 were still working in 2011. 19% were still working in 2016.(2)
- 72% of older people who continued working were male.
- 67% of older people who continued working reduced their working hours between 2006 and 2016.
- 27% worked in Agriculture in 2016.

INTRODUCTION

The Australian population is ageing, with older people (aged 65 years and over) accounting for 16% of the Australian population in 2019, up from 12% in 1999.(3) This changing population profile has a broad range of socio-economic implications, including whether people are financially prepared for living longer past the traditional retirement age of 65 years.(4)

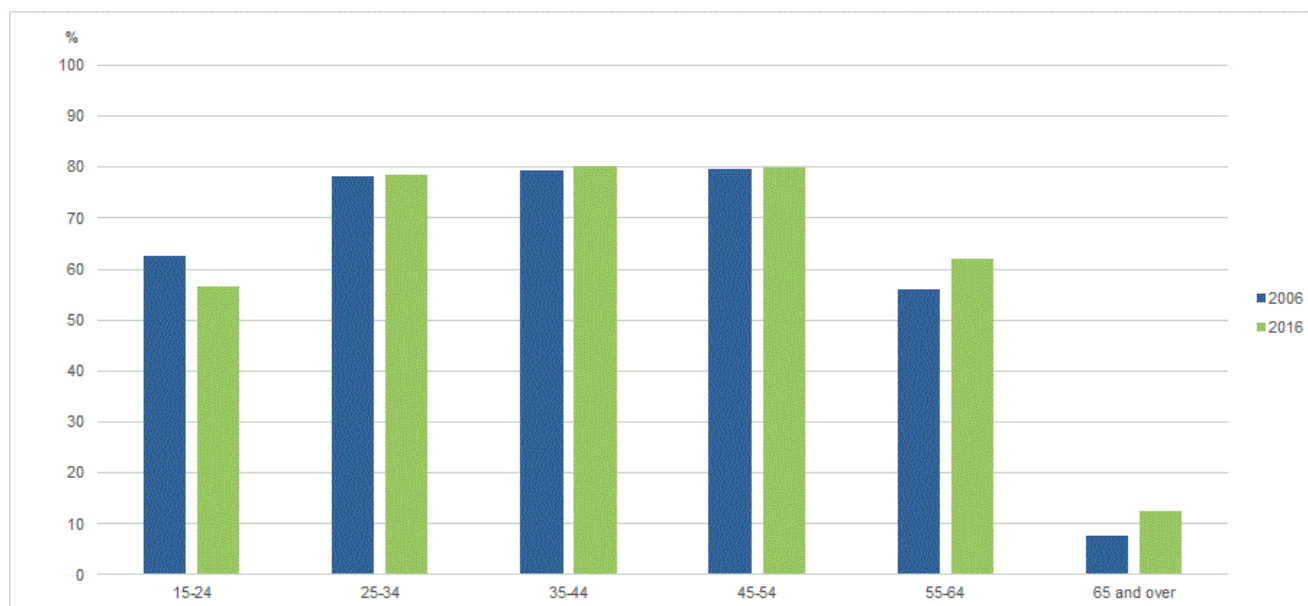
This article draws on the Australian Census Longitudinal Dataset (ACLD) to analyse pathways for people who worked past the age of 65. The ACLD uses data from the Census of Population and Housing to create a rich longitudinal picture of Australian society. This article uses data from the three-wave ACLD, which links a 5% sample of data from the 2006, 2011 and 2016 Censuses.(5)

CHARACTERISTICS OF EMPLOYED PEOPLE

Between 2006 and 2016, the age profile of the workforce has also been changing. In 2016, around 12% of older people were working, compared with 7.6% of older people in 2006.(6)

For the same period, the proportion of employed people who were aged 65 years and over nearly doubled. Older people made up 3.8% of all employed people in 2016, up from 2.0% in 2006.

EMPLOYMENT TO POPULATION RATIO, Age groups, 2006 – 2016(6)



Source: Labour Force, Australia, Detailed – Electronic Delivery, Dec 2019 (cat. no. 6291.0.55.001).

WHO IS WORKING LONGER

Longitudinal data provides some insight into the characteristics of older people who continued working. The ACLD estimates that 175,700 older people were working in 2006. Of these:

- 45% (79,100) continued working in 2011.
- 19% (33,500) continued working in 2011 and 2016.(2) This includes 2,400 people who were aged 85 years or over in 2016.

Nearly three quarters (72%) of older people who continued working were male.

LIVING ARRANGEMENTS

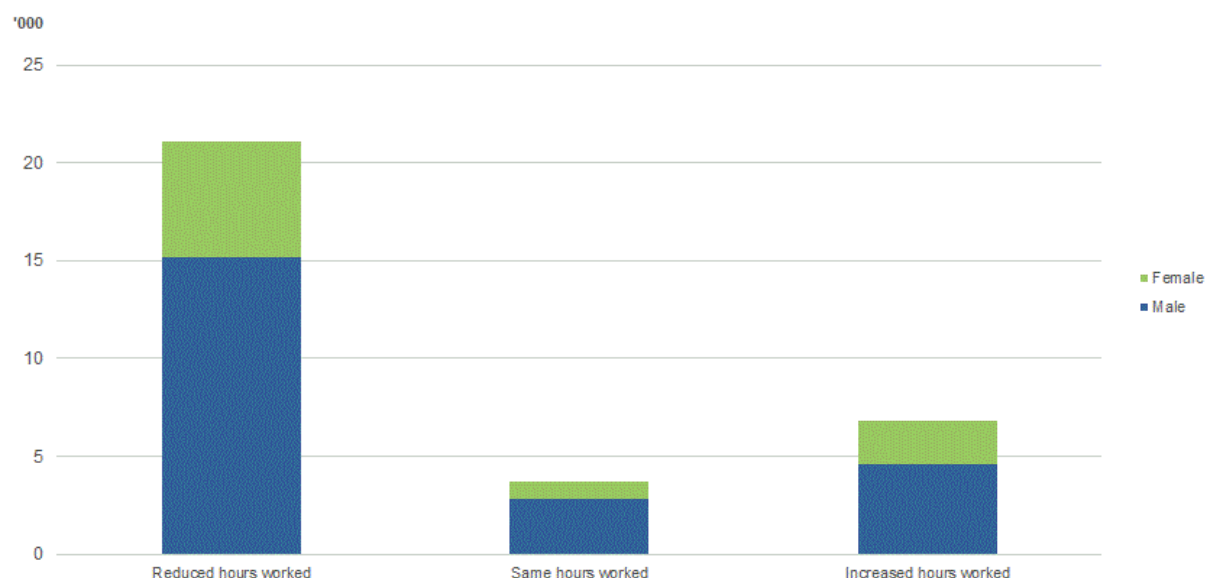
Nearly three quarters of older people who continued working (72%) were living with a spouse or partner in 2016. In most cases (59%), their spouse or partner was also employed in 2016.

19% of older people who continued working were living alone in 2016.

WORKING HOURS

Around two thirds (67%) of older people who continued working reduced their working hours. The median hours worked decreased from 40 hours per week in 2006 to 24 hours per week in 2016.(7)

OLDER PEOPLE WHO CONTINUED WORKING, Longitudinal hours worked by Sex, 2006 to 2016(1)(2)



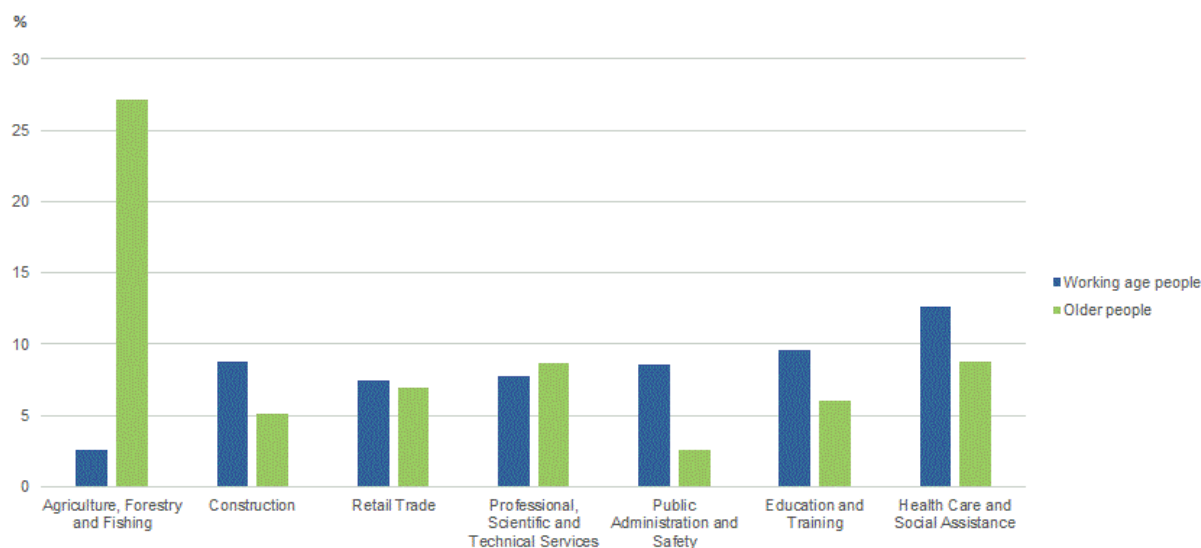
Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

AREA OF RESIDENCE AND INDUSTRY OF EMPLOYMENT

Older people who continued working were more likely to live in regional areas, compared with other people their age. Around 44% lived in regional Australia in 2016, compared with 30% of other people the same age.(8)

This may be related to the type of work older Australians were involved in. More than a quarter (27%) worked in the Agricultural industry, which is considerably more than the proportion of people aged under 65 years working in that industry over the same period (2.6%).(9)

PEOPLE WHO CONTINUED WORKING, Selected industries of employment in 2016 by Age(1)(2)



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Most older people who continued working lived in the eastern states in 2016, with more than a third (35%) living in NSW, more than a quarter (28%) in Victoria, and almost a fifth (19%) in Queensland.

They were more likely to stay living in their local area, compared with other people the same age. Around four in five older people continuing to work (83%) lived in the same local area between 2006 and 2016, compared with 71% of other people the same age.(10)

MORE INFORMATION

The Australian Census Longitudinal Dataset (ACL D) offers unique insight by providing a longitudinal view of Australia by bringing together a 5% sample from the 2006, 2011 and 2016 Censuses.

Further information can be found using the ACL D TableBuilder or DataLab products. For more information about microdata subscription and access refer to the Microdata Entry Page.

Other ABS releases related to this topic:

Twenty Years of Population Change (Feature Article), Australian Demographic Statistics, June 2019 (cat. no. 3101.0).

Australian Farming and Farmers (Feature Article), Australian Social Trends, Dec 2010 (cat. no. 4102.0).

Retirement and Retirement Intentions, Australia, July 2016 to June 2017 (cat. no. 6238.0).

Life Tables, States, Territories and Australia, 2016-2018 (cat. no. 3302.0.55.001).

FOOTNOTES

1) The term older people refers to people aged 65 years and over (in contrast to working age people, who were aged 15-64 years of age). In this article, the term refers to people who were aged 65 and over on Census night 2006.

2) Labour force data presented in this article reflects a person's labour force status as of Census night. Note that a range of changes in a person's labour force status may have occurred between Censuses. Further, due to differences in collection methodologies, this data is not directly comparable with Labour Force, Australia (cat. no. 6202.0). For more information, see Labour Statistics: Concepts, Sources and Methods, Feb 2018 (cat. no. 6102.0.55.001).

3) The changing population profile can be attributed to sustained low fertility and increased life expectancy. In 2016-18, 65 year-olds were expected to live for another 19.9 years (for males) and 22.6 years (for females), up from 17.6 years (for males) and 21 years (for females) in 2002-03. For more information see Twenty Years of Population Change (Feature Article), Australian Demographic Statistics, June 2019 (cat. no. 3101.0); Life Tables, States, Territories and Australia, 2016-2018 (cat. no. 3302.0.55.001); Life Tables, Australia, 2003 (cat. no. 3302.0.55.001).

4) There is no legislated retirement age in Australia. Most people tend to retire between reaching the superannuation preservation age (55 years) and becoming eligible for the old age pension (which has ranged from 60-66 years recently). Currently, the median retirement age is 55.3 years. For more information, see Retirement and Retirement Intentions, Australia, July 2016 to June 2017 (cat. no. 6238.0).

5) The three-wave ACL D (2006-2011-2016) consists of a representative 5% sample of records from the 2006 Census, linked to corresponding records in the 2011 and 2016 Censuses. Data was then weighted to represent the population that was in scope of the Census for the period 2006 to 2016. For more

information, see Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2006 – 2016 (cat. no. 2080.5).

6) See August 2006 and August 2016 in Labour Force, Australia, Detailed – Electronic Delivery, Aug 2016 (cat no. 6291.0.55.001). Note that Labour Force data is not directly comparable with the ACLD, due to differences in collection methodology and coverage. For more information, see and Labour Statistics: Concepts, Sources and Methods, Feb 2018 (cat. no. 6102.0.55.001) and Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2006 – 2016 (cat. no. 2080.5).

7) Indicates the number of hours worked by the employed person in all jobs during the week prior to Census night. Excludes persons who did not state hours worked per week.

8) Regional Australia comprises Inner Regional Australia and Outer Regional Australia as defined in the Australian Statistical Geography Standard (ASGS): Volume 5 – Remoteness Structure, July 2016 (cat. no. 1270.0.55.005).

9) For more information, see Australian and New Zealand Standard Industrial Classification (ANZSIC), 2006 (Revision 2.0) (cat. no. 1292.0).

10) People who remained in the same local area lived in the same Statistical Area Level 2 (SA2) on Census night 2006, 2011 and 2016. Note that their usual residence may have changed between Censuses. SA2s are designed to reflect functional areas that reflect a community that acts together socially and economically. They generally have a population range of 3,000 – 25,000 persons. For more information, see Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001).

Australians who developed a profound or severe disability

AUSTRALIANS WHO DEVELOPED A PROFOUND OR SEVERE DISABILITY

KEY INSIGHTS

- 4.6% of Australians developed a profound or severe disability⁽¹⁾ between 2006 and 2016.⁽²⁾
- Older people⁽³⁾ who developed a profound or severe disability were more than one-and-a-half times as likely as older people who did not develop a profound or severe disability to begin living with their non-dependent children⁽⁴⁾ (6.1% compared with 3.6%).
- Working age people⁽⁵⁾ who developed a profound or severe disability were more than two-and-a-half times more likely to leave the labour force⁽⁶⁾ than working age people who did not develop a profound or severe disability (40% compared with 15%).

INTRODUCTION

Over the coming decades, the number of people with a profound or severe disability is expected to steadily increase, placing increased pressure on government resources and exacerbating socio-economic disadvantage.⁽⁷⁾

This article complements data collected in the Survey of Disability Ageing and Carers and other ABS surveys, by drawing on the Australian Census Longitudinal Dataset (ACLD) to analyse pathways for people who developed a profound or severe disability. The ACLD uses data from the Census of Population and Housing to create a rich longitudinal picture of Australian society. This article uses data from the three-wave ACLD, which links a 5% sample of data from the 2006, 2011 and 2016 Censuses.⁽⁸⁾

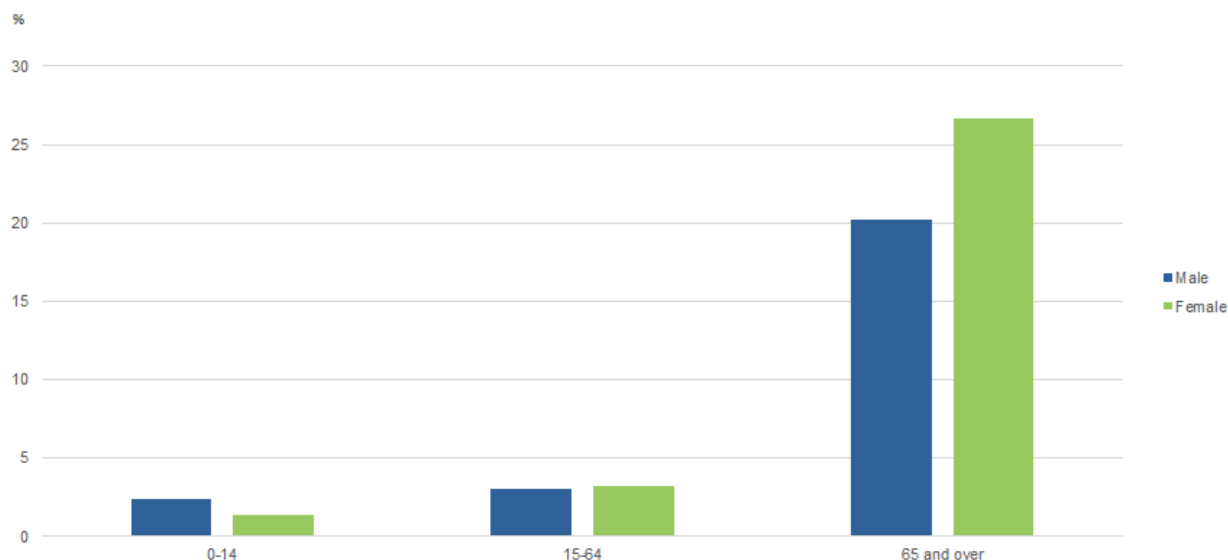
WHO DEVELOPED A PROFOUND OR SEVERE DISABILITY

The ACLD shows that 4.6% (849,600) of Australians developed a profound or severe disability between 2006 and 2016, meaning they needed help with one or more of the core activities of daily living:

- Self-care (showering, bathing, dressing, eating, or going to the toilet).
- Mobility (moving around at home or away from home, or getting in or out of bed).
- Communication (understanding and being understood by family, friends, or strangers).⁽¹⁾

Profound or severe disability is more prevalent among older people (aged 65 years and over).⁽⁹⁾ 24% of older people⁽³⁾ developed a profound or severe disability between 2006 and 2016, compared with 3.1% of working age people (aged 15-64 years).⁽⁵⁾

PEOPLE WHO DEVELOPED A PROFOUND OR SEVERE DISABILITY, Age by Sex, 2006 to 2016⁽²⁾



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

Profound or severe disability is also more prevalent among females, who tend to live longer than males.(10) Between 2006 and 2016, 5.1% of females developed a profound or severe disability, compared with 4.1% of males. Older females were particularly likely to develop this level of disability (27%, compared with 20% of older males).

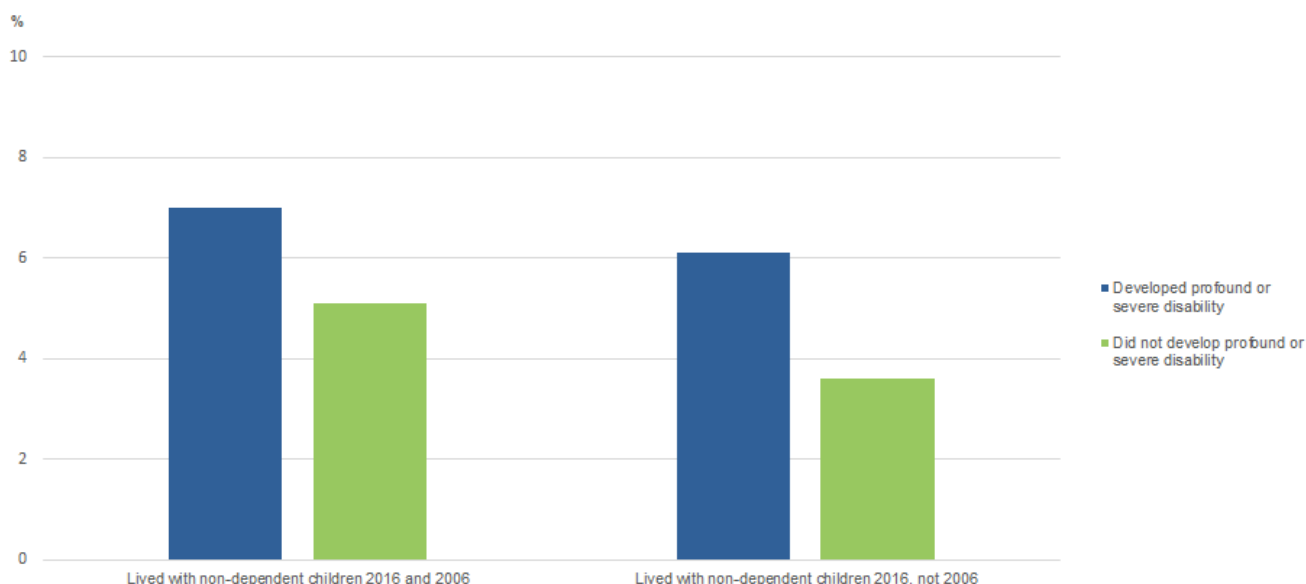
LIVING ARRANGEMENTS

Historically, many people living with disability have relied on care from family members and other informal carers.(7)

Older people(3) who developed a profound or severe disability were more likely to live with their non-dependent children(4):

- 6.1% lived with non-dependent children in 2016 but not in 2006, compared with 3.6% of older people who didn't develop a profound or severe disability.
- 7.0% lived with their non-dependent children in both 2016 and 2006, compared with 5.1% of older people who didn't develop a profound or severe disability.

OLDER PEOPLE, Longitudinal living arrangements by Longitudinal disability status, 2006 to 2016(2)(3)(4)



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

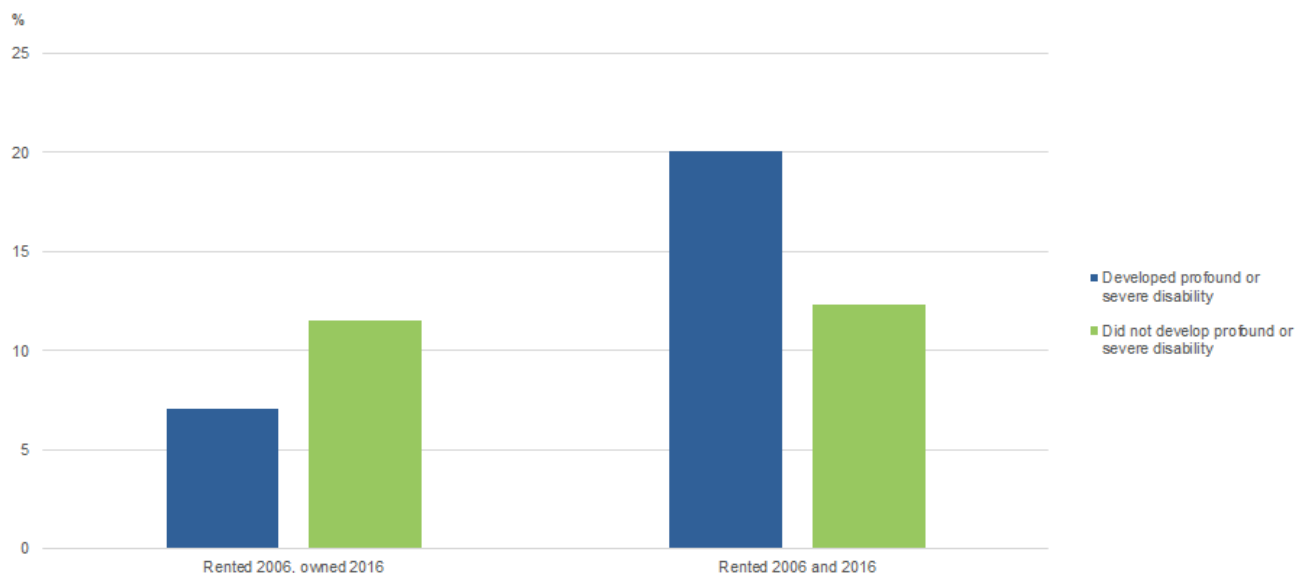
HOUSING CHARACTERISTICS

People with a disability can face significant challenges in securing appropriate housing or accommodation. These include a shortage of accessible housing, and socio-economic disadvantage (which is often compounded by disability).(7)

The ACLD shows that working age people(5) who developed a profound or severe disability were:

- Less likely to live in owner-occupied households. 7.1% moved from renting in 2006 to owner-occupied households in 2016, compared with 12% of working age people who didn't develop this level of disability.
- More likely to remain in the rental market. 20% rented in both 2006 and 2016, compared with 12% of working age people who didn't develop this level of disability.
- More likely to live in community housing.(11) 6.2% lived in community housing in both 2006 and 2016, while a further 4.5% moved into community housing during this period (compared with 1.7% and 0.9% of working age people who did not develop a profound or severe disability, respectively).

WORKING AGE PEOPLE, Longitudinal housing characteristics by Longitudinal disability status, 2006 to 2016(2)(5)



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

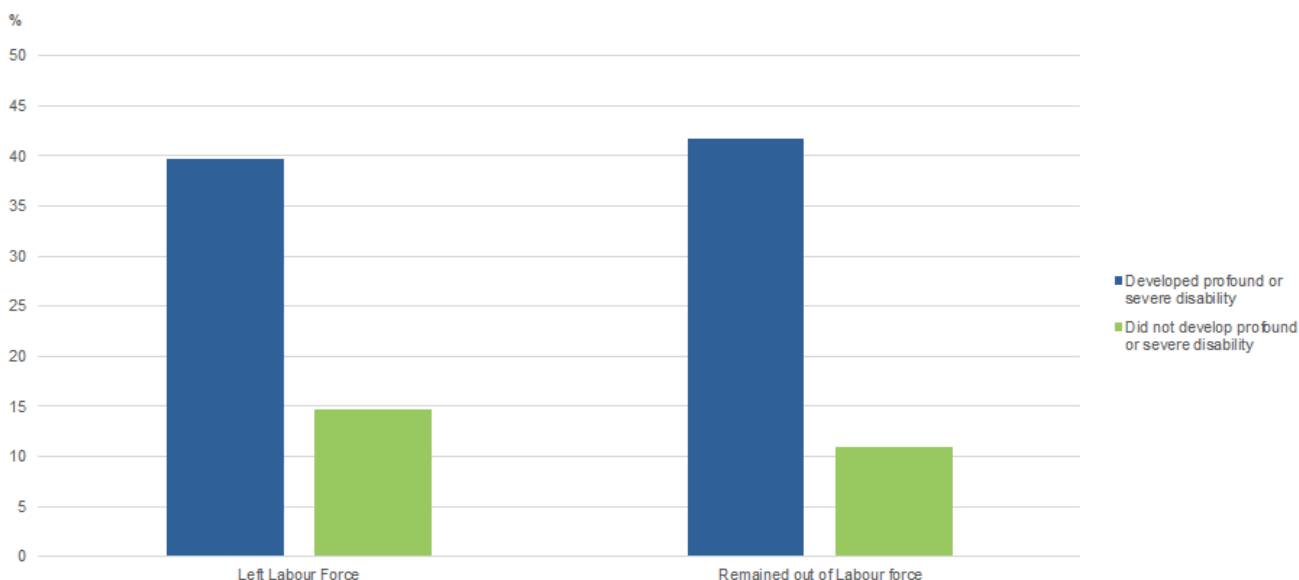
EMPLOYMENT CHARACTERISTICS

People with a profound or severe disability often have lower levels of labour force participation compared with those without this level of disability.(12) Complex social, economic, and cultural factors often make it difficult for people with disabilities to find and retain paid employment.(7)

Working age people(5) who developed a profound or severe disability were more likely to leave the labour force.(6) 40% left the labour force between 2006 and 2016, compared with 15% of people who didn't develop a profound or severe disability during this time period.

People who developed a profound or severe disability were also more likely to remain out of the labour force. 42% were not in the labour force in 2006 or 2016, compared with 11% of those who didn't develop a profound or severe disability during this period.(6)

WORKING AGE PEOPLE, Longitudinal labour force status by Longitudinal disability status, 2006 to 2016(2)(5)



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

For most age cohorts within the working age population(5), people who developed a profound or severe disability were more likely to leave the labour force.

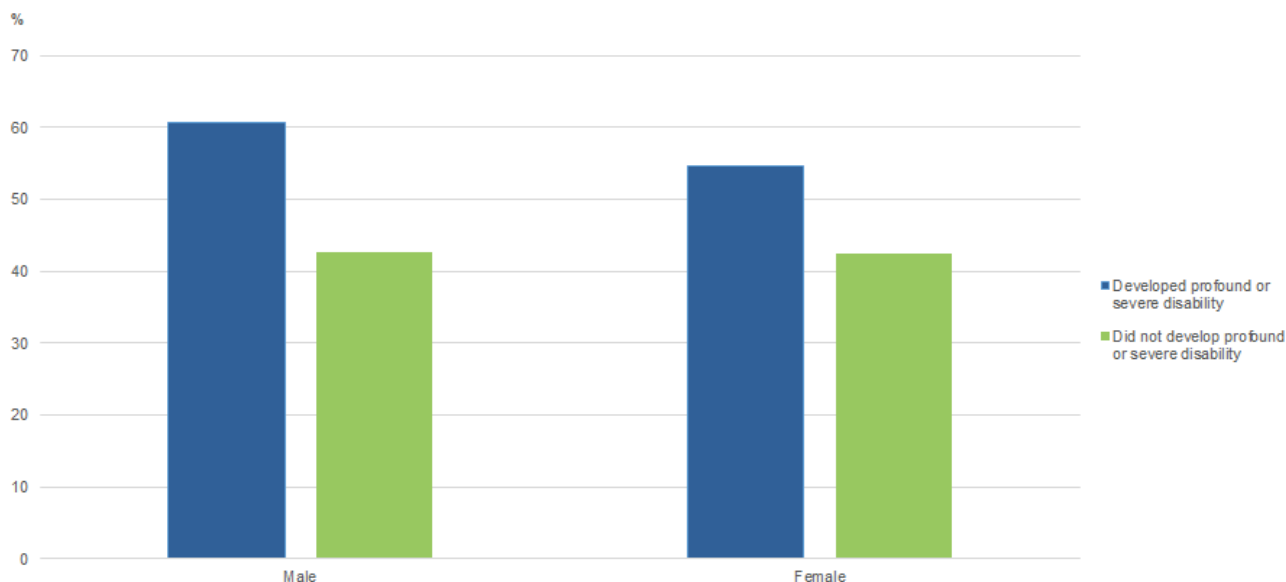
RATE OF PEOPLE WHO LEFT THE LABOUR FORCE, Age by Sex and Longitudinal disability status, 2006-2016(2)(5)

Age group	MALES		FEMALES		PERSONS	
	Developed profound or severe disability	Didn't develop profound or severe disability	Developed profound or severe disability	Didn't develop profound or severe disability	Developed profound or severe disability	Didn't develop profound or severe disability
	(%)	(%)	(%)	(%)	(%)	(%)
15-24 years	29.9	3.5	26.5	10.7	28.7	7.0
25-34 years	43.0	4.5	32.3	9.9	37.4	7.3
35-44 years	46.5	5.6	34.3	7.8	39.6	6.7
45-54 years	53.7	17.7	40.9	22.1	46.7	19.9
55-64 years	48.3	47.9	26.9	35.7	37.3	41.7

Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

For those who were employed in 2006 and 2016, people who developed a profound or severe disability were more likely to reduce their working hours. 57% worked fewer hours in 2016 than in 2006, compared with 43% of people who did not develop a profound or severe disability.(13)

WORKING AGE PEOPLE WHO REDUCED WORKING HOURS, Sex by Longitudinal disability status, 2006 to 2016(2)(5)



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

People who developed a severe or profound disability may also experience other restrictions around the type of work they can undertake. For more detailed information about employment restrictions, see the Survey of Disability Ageing and Carers.

MORE INFORMATION

The Australian Census Longitudinal Dataset (ACLD) offers unique insight by providing a longitudinal view of Australia by bringing together a 5% sample from the 2006, 2011 and 2016 Censuses.

Further information can be found using the ACLD TableBuilder or DataLab products. For more information about microdata subscription and access refer to the Microdata Entry Page.

Other ABS releases related to this topic:

- Disability, Ageing and Carers, Australia: Summary of Findings, 2018 (cat. no. 4430.0)
- Microdata: Disability, Ageing and Carers, Australia, 2018 (cat. no. 4430.0.30.002)
- Experiences of Violence and Personal Safety for People with Disability, 2016 (cat. no. 4431.0.55.003)
- ABS Sources of Disability Information, 2012-2016 (cat. no. 4431.0.55.002)
- Disability and Labour Force Participation, 2012 (cat. no. 4433.0.55.006)
- Aboriginal and Torres Strait Islander People with a Disability, 2012 (cat. no. 4433.0.55.005)

FOOTNOTES

- 1) People with a profound or severe disability are defined as those people needing help or assistance in one or more of the three core activity areas of self-care, mobility and communication, because of a disability, long-term health condition (lasting six months or more) or old age. For more information see ABS Sources of Disability Information 2012-2016 (cat. no. 4431.0.55.002).
- 2) In this article people who developed a profound or severe disability reported this level of disability in 2016 but not 2006. People who didn't develop a profound or severe disability didn't report this level of disability in either 2016 or 2006.
- 3) The term older people refers to people aged 65 years and over (in contrast to working age people, who are aged 15-64 years of age). In this article, the term refers to people who were aged 65 and over on Census night 2006.
- 4) A non-dependent child is a natural, adopted, step or foster child (of a couple or single parent usually resident in the household) who is aged 15 years or over. Excludes full-time students aged 15-24, as well as people with an identified partner or child of their own who is usually resident in the household. For more information, see Census of Population and Housing: Census Dictionary 2016 (cat. no. 2901.0).
- 5) The working age population consists of people 15-64 years of age (in contrast to older people who are aged 65 and over). In this article, the term working age people refers to those who were aged 15-64 on Census night 2006.
- 6) People in the labour force are either employed, or actively looking for work and available to start work. Note that this data reflects a person's labour force status on Census night and a range of changes in labour force status may have occurred between Censuses. For more information see Labour Statistics: Concepts, Sources and Methods, Feb 2018 (cat. no. 6102.0.55.001).
- 7) See Disability Investment Group, The Way Forward: A New Disability Policy Framework For Australia (Canberra: Department of Families, Housing, Community Services and Indigenous Affairs, 2009); Productivity Commission, Disability Care and Support, Report no. 54 (Canberra: Productivity Commission, 2011); National People with Disabilities and Carer Council, Shut out: The Experience of People with Disabilities and their Families in Australia (Canberra: Department of Families, Housing, Community Services and Indigenous Affairs, 2009).
- 8) The three-wave ACLD (2006-2011-2016) consists of a representative 5% sample of records from the 2006 Census, linked to corresponding records in the 2011 and 2016 Censuses. Data was then weighted to represent the population that was in scope of the Census for the period 2006 to 2016. For more information, see Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2006 – 2016 (cat. no. 2080.5).
- 9) In 2018, the prevalence of profound or severe disability was 18% for people aged 65 and over (compared with 3.2% for people aged 15-64 and 4.5% for people under 15). For more information, see Disability, Ageing and Carers, Australia: Summary of Findings 2018 (cat. no. 4430.0) and Life Tables, States, Territories and Australia (cat. no. 3302.0.55.001).
- 10) In 2018, 6.0% of females had a profound or severe disability, compared with 5.5% of males. For more information, see Disability, Ageing and Carers, Australia: Summary of Findings 2018 (cat. no. 4430.0).
- 11) The term community housing refers to rented accommodation owned by Government housing authorities or housing departments, Housing co-operatives, or Community or Church Groups.
- 12) In 2018, 27% of working age people (living in households) with a profound or severe disability were in the labour force, compared with 82% of people who didn't have this level of disability. For more information see Disability, Ageing and Carers, Australia: Summary of Findings 2018 (cat. no. 4430.0).
- 13) Indicates the number of hours worked by the employed person on the week prior to Census night. Excludes people who did not state hours per week.

Australians who moved from renting to home ownership

This document was added or updated on 07/04/2020.

AUSTRALIANS WHO MOVED FROM RENTING TO HOME OWNERSHIP

KEY INSIGHTS

In 2006, over 3 million Australians (aged 20 years and over) were renting.

By 2016, 42% of those previously renting were living in homes owned outright or with a mortgage, and 49% continued to rent.⁽¹⁾⁽²⁾

Those who moved from renting to home ownership were more likely to:

- be younger
(median age in 2016 of 43 years compared with 48 years for continuing renters)
- live in a household with more than one income earner
(63% compared with 35% of continuing renters)
- move suburbs or regions
(76% compared with 58% of continuing renters).

INTRODUCTION

Housing affordability in Australia has broadly declined since the early 1980s. In 1981, the average house price in Australian capital cities was equivalent to around three years of average earnings. This had grown to over seven years of average earnings by 2015.⁽³⁾

Roughly over that same time, we have seen an increased proportion of people renting, rather than owning their own homes. In 2017-18, nearly one third (32%) of Australian households were renters, up from 27% 20 years prior.(4)

Renters are more likely to be under financial pressure, with 29% spending more than 30% of their household income on housing costs in 2017-18. By comparison, 19% of households with a mortgage were spending more than 30% of their household income on housing costs over this same period.(4)

This article draws on the Australian Census Longitudinal Dataset (ACLSD) to analyse pathways for people who were living in rented dwellings in 2006. The ACLSD uses data from the Census of Population and Housing to create a rich longitudinal picture of Australian society. This article uses data from the three-wave ACLSD, which links a 5% sample of data from the 2006, 2011 and 2016 Censuses.(5)

WHO MOVED TO HOME OWNERSHIP

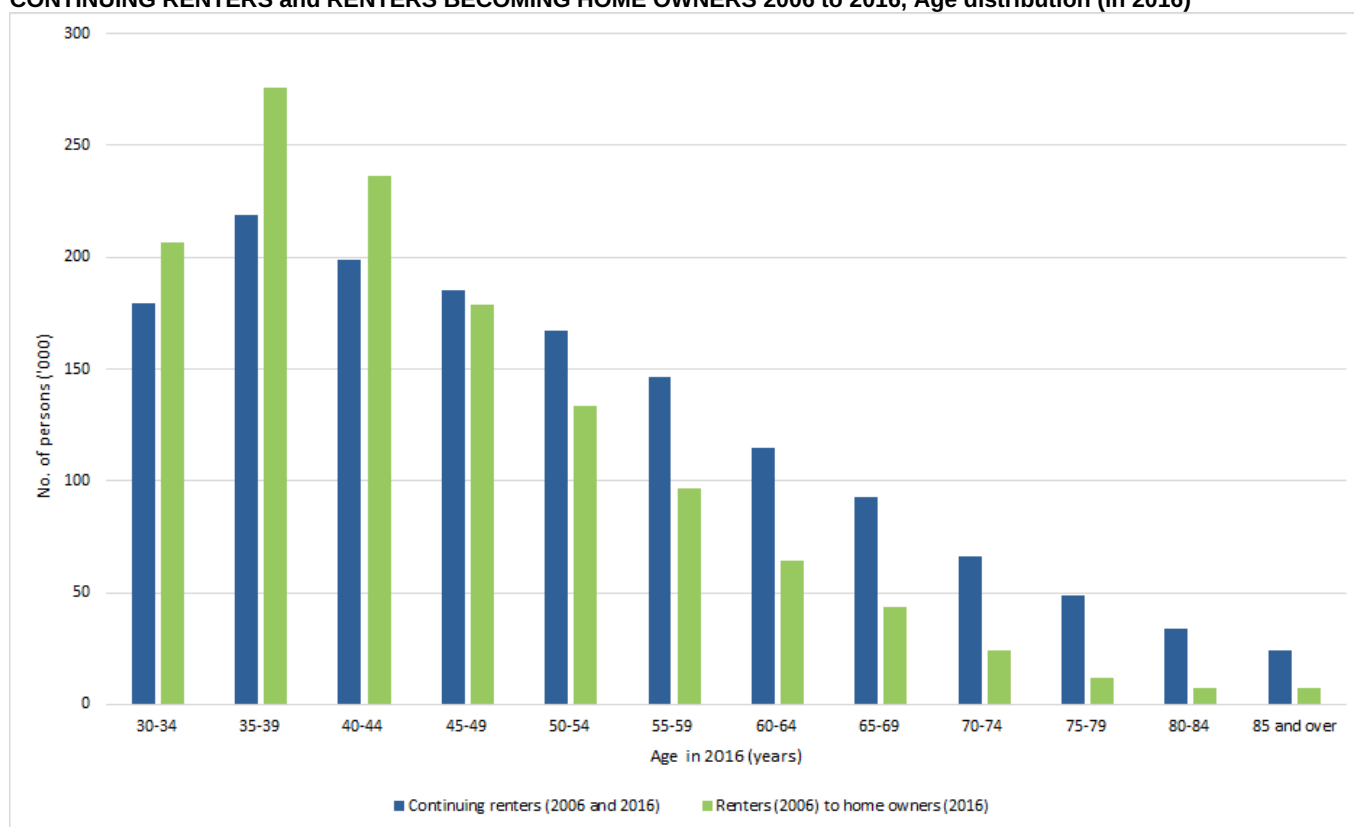
In 2006, there were more than 3 million people aged 20 years and over living in rented dwellings.(6) By 2016, 42% of them had moved into a home owned outright or with a mortgage, and 49% continued to rent.(2)(7)

AGE AND SEX

There were more females renting in 2006 (53%), compared with males (47%). Females were also more likely than males to continue renting 10 years later. 41% of the female renters moved into home ownership, and 51% continued renting, while 44% of the male renters moved into home ownership and 46% continued renting.

People who moved into home ownership tended to be younger than those who continued to rent, with a median age of 43 years (in 2016). The median age of those who continued to rent was 48 years.

CONTINUING RENTERS and RENTERS BECOMING HOME OWNERS 2006 to 2016, Age distribution (in 2016)



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

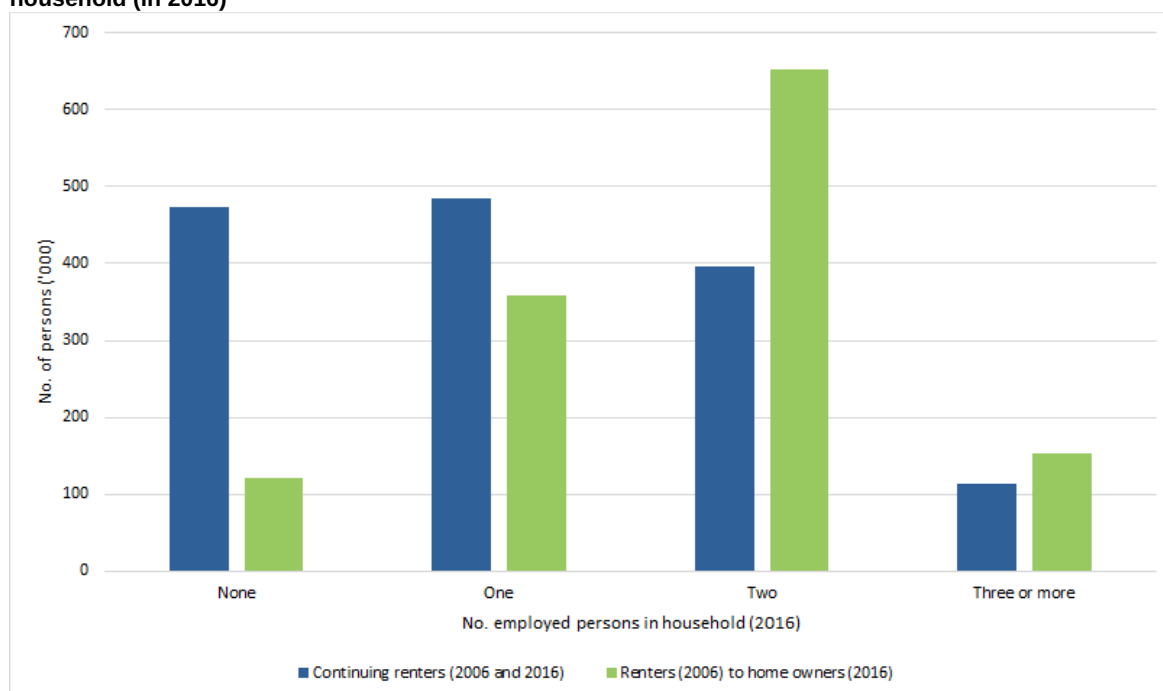
EMPLOYMENT

Most people who moved from renting to home ownership lived in a household with more than one income earner.(8) More than half of this group (53%) lived in households where two or more people were employed in 2006 (while renting), and this increased to 63% by 2016 (and they had become home owners).

Nearly 38% of these renters to home owners lived in households with two or more income earners in both 2006 and 2016.

By comparison, just over a third of people who continued to rent lived in a household with more than one income earner in either 2006 or 2016 (35%), and 19% lived in households with more than one income earner in both 2006 and 2016.

CONTINUING RENTERS and RENTERS BECOMING HOME OWNERS 2006 to 2016, Number of employed persons in household (in 2016)

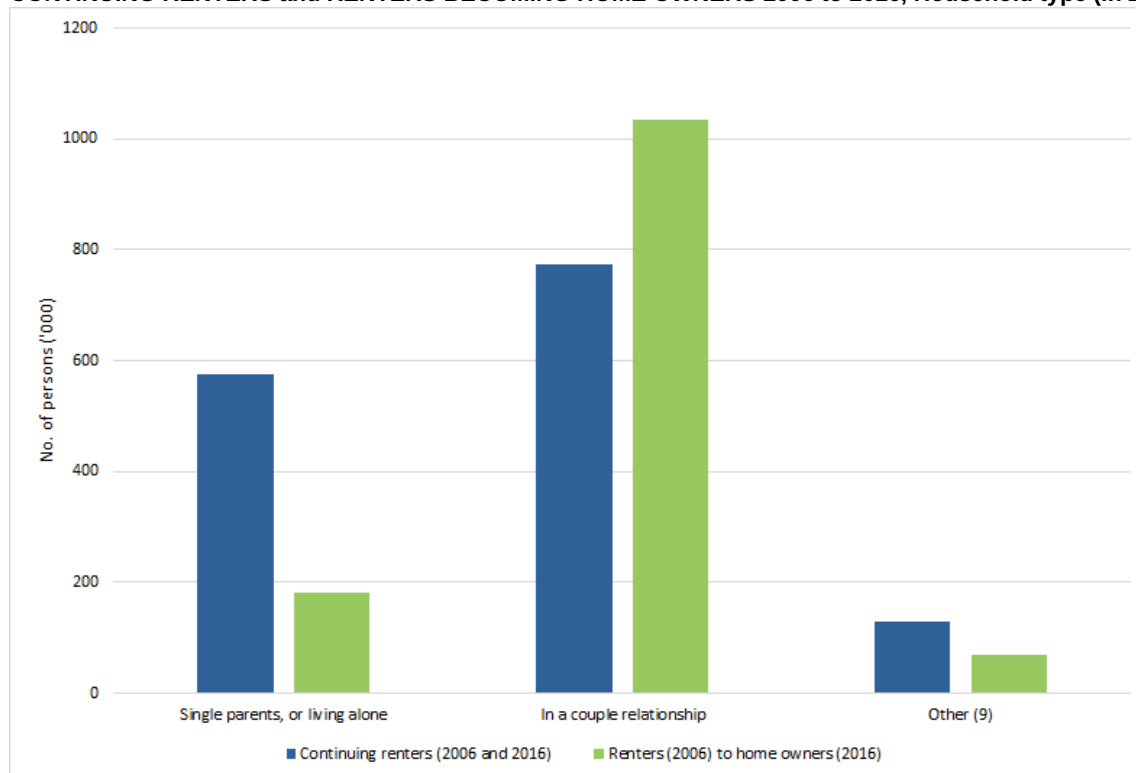


Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

HOUSEHOLD STRUCTURE

This pattern reflects the family structures of households who moved from renting to home ownership. Just over 80% were living in a couple relationship in 2016. Just over half (52%) of continuing renters were part of a couple in 2016, and 39% either lived alone or were single parents.

CONTINUING RENTERS and RENTERS BECOMING HOME OWNERS 2006 to 2016, Household type (in 2016)

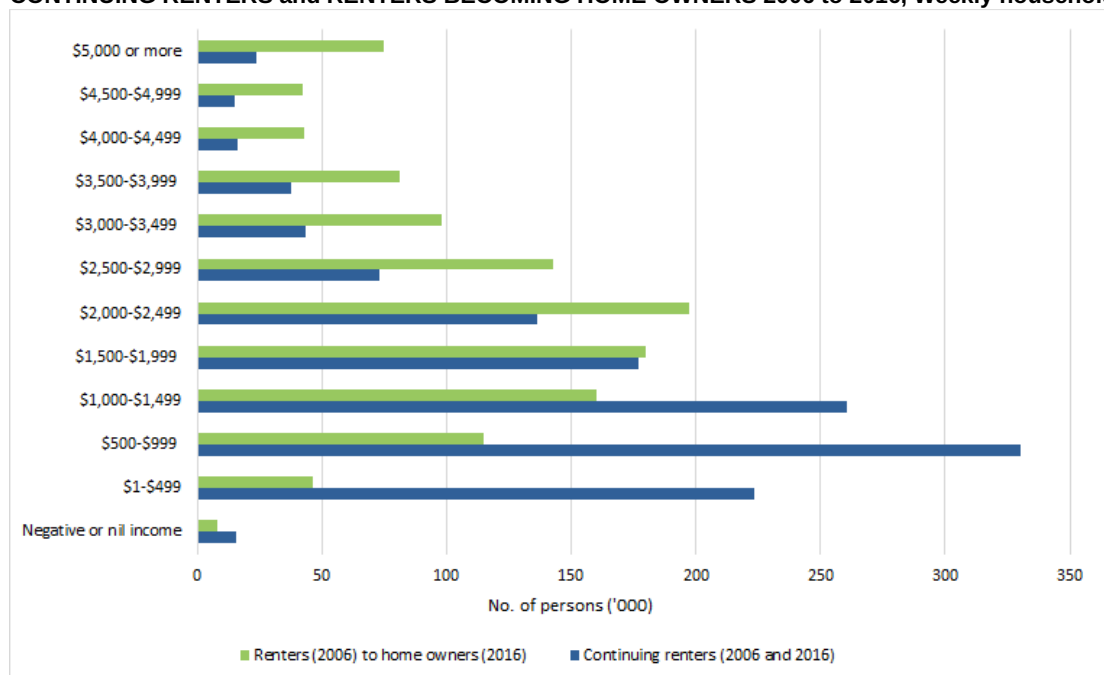


Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

INCOME

Related to this, the group who moved from renting to home ownership had higher household incomes than their renting counterparts, with more than half (57%) in households with an income of \$2,000 or more per week.(10) Just over a quarter (26%) of continuing renters lived in households with this same income.

CONTINUING RENTERS and RENTERS BECOMING HOME OWNERS 2006 to 2016, Weekly household income (in 2016)



Source: Microdata: Australian Census Longitudinal Dataset (cat. no. 2080.0)

GEOGRAPHIC MOBILITY

People who transitioned from renting into home ownership were more mobile than continuing renters. Around three quarters (76%) lived in a different suburb or region in 2016 compared with 10 years earlier, whereas 58% of continuing renters had moved suburbs or regions.(11)

MORE INFORMATION

The Australian Census Longitudinal Dataset (ACLD) offers unique insight by providing a longitudinal view of Australia by bringing together a 5% sample from the 2006, 2011 and 2016 Censuses.

Further information can be found using the ACLD TableBuilder or DataLab products. For more information about microdata subscription and access refer to the Microdata Entry Page.

Other ABS releases related to this topic:

- "More households renting as home ownership falls", Housing Occupancy and Costs, 2017-18 (cat. no. 4130.0)
- "Recent Home Buyers", Housing Occupancy and Costs, 2017-18 (cat. no. 4130.0)
- "Housing Affordability", Housing Occupancy and Costs, 2017-18 (cat. no. 4130.0)
- Household Expenditure Survey, Australia: Summary of Results, 2015-16 (cat. no. 6530.0)
- Residential Property Price Indexes: Eight Capital Cities, Sep 2019 (cat. no. 6416.0)
- "Population Shift: Understanding Internal Migration in Australia", Census of Population and Housing: Reflecting Australia – Stories from the Census, 2016 (cat. no. 2071.0)

FOOTNOTES

1. This analysis uses the Australian Census Longitudinal Dataset to explore the characteristics of those who lived in a rented dwelling on Census night in 2006, and then either in a rented dwelling, or a dwelling owned outright or with a mortgage on Census night in 2016. This analysis excludes:
 - people who were away from their usual residence on Census night, as the tenure type of their usual residence is not known
 - people in non-private dwellings, and in migratory, off-shore and shipping Statistical Area 1s (SA1s) on Census night
 - people unlikely to hold decision making responsibility for tenure type (refer footnote (6) for further information).
2. The remaining 9% comprised people who moved to another tenure type (including non-private dwellings), or whose tenure type was not stated or unknown.
3. "Housing Affordability in Australia", Dr Matthew Thomas, Alicia Hall, Parliamentary Briefing, August 2016.
4. Housing Occupancy and Costs, 2017-18 (cat. no. 4130.0).
5. The three-wave ACLD (2006-2011-2016) comprises a representative 5% sample of records from the 2006 Census, linked to corresponding records in the 2011 and 2016 Censuses. Data was then weighted to represent the population that was in scope of the Census for the period 2006 to 2016. For more information, see Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2006 – 2016 (cat. no. 2080.5).
6. For the purposes of this analysis, the population of interest has been scoped to represent people more likely to hold decision making responsibility for tenure type. The population of interest excludes:
 - people aged under 20 years (on Census night 2006).
 - dependent and non-dependent children living at home; and
 - visitors to dwellings (tenure type is collected for place of enumeration and not usual residence).
7. Continuing renters may include people who owned a dwelling (with or without a mortgage) which they did not live in themselves. Continuing renters comprise those who lived in a rented dwelling on Census night in both 2006 and 2016. Changes to a person's tenure type may have occurred between

Censuses.

8. Two or more employed persons usually resident in the household.
9. Other household type includes member of a group household and an individual living with a family.
10. Excludes persons where household income was not stated (either partially or in full).
11. Living in different suburb or region is based on the Statistical Area Level 2 (SA2) of the person's usual address on Census night 2006 and 2016. SA2s are designed to reflect functional areas that reflect a community that acts together socially and economically. They generally have a population range of 3,000 – 25,000 persons. For more information, see Australian Statistical Geography Standard (ASGS): Volume 1 – Main Structure and Greater Capital City Statistical Areas, July 2016 (cat. no. 1270.0.55.001).
- 12.

Identification as an Aboriginal and Torres Strait Islander person in the Census over time

IDENTIFICATION AS AN ABORIGINAL AND TORRES STRAIT ISLANDER PERSON IN THE CENSUS OVER TIME

ACKNOWLEDGEMENT

This article was prepared by the ABS' Centre of Excellence for Aboriginal and Torres Strait Islander Statistics and was reviewed by:

- Dr Fadwa Al-Yaman (Australian Institute of Health and Welfare)
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INTRODUCTION AND KEY STATISTICS

An important consideration in official statistics for Aboriginal and Torres Strait Islander people is that a person's Indigenous status can change over time. The reasons for this are varied and complex.

In Australia, Indigenous status is a self-reported measure collected through the Standard Indigenous Question (SIQ) – part of the ABS Indigenous Status Standard. The SIQ has remained the same since it was first introduced in 1996. In the Census, the SIQ can be completed by each person on the Census form or by any responsible adult who fills in the Census form on behalf of all household members (for example, a parent may complete to the Census on behalf of their child). A person's Indigenous status in the Census can therefore reflect how they choose to identify themselves, or how a member of their household has identified them.

This article uses longitudinal data from the 2006-2011-2016, three wave Australian Census Longitudinal Dataset (ACL) to explore whether people who identify as being of Aboriginal and/or Torres Strait Islander origin in the Census do so consistently over time. It outlines the spatial and demographic characteristics of people who have ever identified as Aboriginal and Torres Strait Islander in the Census. This includes people who have:

- Chosen to identify as Aboriginal and/or Torres Strait Islander in 2006, 2011 and 2016 (people who are consistently identified).
- Chosen to change their Indigenous status and have identified as Aboriginal and/or Torres Strait Islander in either 2006, 2011 or 2016 (people who are newly identified in 2011, newly identified in 2016 or previously identified).

This article does not question the legitimacy of a person's decision to identify as an Aboriginal and/or Torres Strait Islander person in the Census.

Key statistics

- Of people who ever identified as Aboriginal and Torres Strait Islander between 2006 and 2016, two-thirds (66%) consistently identified
- The Northern Territory had the highest proportion of consistently identified people (92%)
- Victoria had the highest proportion of people who were newly identified in 2016 (17%)
- People living in Major Cities were the most likely to change their identification between 2006 and 2016 (45%)
- Young people aged 25-34 years in 2016 accounted for almost a quarter (24%) of previously identified people
- Most people (86%) whose Indigenous status changed between 2006 and 2016 had a non-Indigenous spouse or partner in 2016
- Men were more likely to change identification than women (37% compared to 31%)

Why is this analysis important?

How a person reports their Indigenous status can change and there are many personal and external influences that inform a person's decision to identify as being of Aboriginal and/or Torres Strait Islander origin in the Census. The statistics in this article do not explain why a person may have consistently identified in the Census or why their Indigenous status may change. This type of information is not collected in the Census. There are many qualitative works by Aboriginal and Torres Strait Islander authors, or involving Aboriginal and Torres Strait Islander people and communities that discuss the topic of identity and the factors influencing a person's identity throughout their life.

The analysis presented in this article does however allow Census users to better understand changes in the counts of Aboriginal and Torres Strait Islander people in successive Censuses. It illustrates where these changes are occurring and whether these changes are associated with key life stages – childhood, spouse/partner relationships and early adulthood.

What are the implications of this analysis?

This analysis can be used to consider whether changes in how people identify are contributing to changes in other key socio-economic characteristics such as transitions from education to employment, changes in housing tenure or personal income. These characteristics will be explored in future work using the three wave ACLD. The findings in this analysis provide some context for considering the influence of changing Indigenous status on key demographic indicators such as life expectancy and population projections.

Indigenous status as a self-reported measure

INDIGENOUS STATUS AS A SELF-REPORTED MEASURE

This article looks at patterns in peoples' identification as being of Aboriginal and/or Torres Strait Islander origin in the 2006-2011-2016, three wave Australian Census Longitudinal Dataset (ACLD). It complements existing work on this topic by looking at changes in identification over a 10 year period ^{1,2,3}.

Throughout this article, people who identified as being of Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander origin are referred to as *Aboriginal and Torres Strait Islander*. Changes in identification between Aboriginal, Torres Strait Islander or both Aboriginal and Torres Strait Islander are outside the scope of this article.

In Australia, Indigenous status is a self-reported measure collected through the Standard Indigenous Question (SIQ). This means a person can choose to change how they respond to the SIQ. There are a number of reasons a person's Indigenous status may change, such as:

- Whether Indigenous status is provided directly by the individual or someone else on their behalf^{1,2,4}. This may apply in the Census, as the person filling out a Census form in a family or household may be different in each Census year
- Perceived effects of identifying in certain contexts^{5,6}. For example, a person may identify differently in the Census to how they might identify with their local doctor or hospital
- Perceived purpose and relevance of Indigenous status being collected⁵
- Having adequate information about why Indigenous status is being asked⁵
- The way Indigenous status is asked⁵
- The shifting or fluid nature of cultural identity⁷
- Exposure to negative experiences such as racism and discrimination (historical or current)^{6,8,9}
- Changes in personal circumstances such as entering into a de facto relationship or marriage^{10,11}
- Public discourse about issues impacting Aboriginal and Torres Strait Islander people and communities^{8,12}

In the three wave ACLD, there are 27 different combinations of Indigenous status a person can have over three Census periods (see explanatory note 1). For example, a person may have identified as Aboriginal and Torres Strait Islander in 2006 and 2011 but not in 2016.

Based on a person's Indigenous status in the 2016 ACLD, this article explores the demographic characteristics of people who have ever identified as being an Aboriginal and Torres Strait Islander person in 2006, 2011 or 2016. This includes people who were:

- Consistently identified: people who identified as Aboriginal and Torres Strait Islander in 2006, 2011 and 2016.
- Newly identified in 2011: people who identified as Aboriginal and Torres Strait Islander in 2016 and 2011.
- Newly identified in 2016: people who identified as Aboriginal and Torres Strait Islander in 2016 only.
- Previously identified: people who identified as Aboriginal and Torres Strait Islander in 2006 and/or 2011 only.
- Identified in 2016 and 2006: people who identified as Aboriginal and Torres Strait Islander in 2016 and 2006 only.

Changing Indigenous status in the three wave ACLD(a)(b)

Indigenous status		
2016	2011	2006

Consistently identified	Aboriginal and/or Torres Strait Islander	Aboriginal and/or Torres Strait Islander	Aboriginal and/or Torres Strait Islander
Newly identified in 2011	Aboriginal and/or Torres Strait Islander	Aboriginal and/or Torres Strait Islander	Non-Indigenous or Not stated
Newly identified in 2016	Aboriginal and/or Torres Strait Islander	Non-Indigenous or Not stated	Non-Indigenous or Not stated
Previously identified	Non-Indigenous or Not stated Non-Indigenous or Not stated Non-Indigenous or Not stated	Aboriginal and/or Torres Strait Islander Aboriginal and/or Torres Strait Islander Non-Indigenous or Not stated	Aboriginal and/or Torres Strait Islander Non-Indigenous or Not stated Aboriginal and/or Torres Strait Islander
Identified in 2016 and 2006	Aboriginal and/or Torres Strait Islander	Non-Indigenous or Not stated	Aboriginal and/or Torres Strait Islander

(a) Based on Indigenous status in 2016.

(b) For further detail, see Explanatory note 1 and Table 1 in the data cube titled 'ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time'.

The data excludes people aged 0-9 years in 2016 as they do not have a 2006 Census record to be linked to their 2011 or 2016 Census record in the three wave ACLD.

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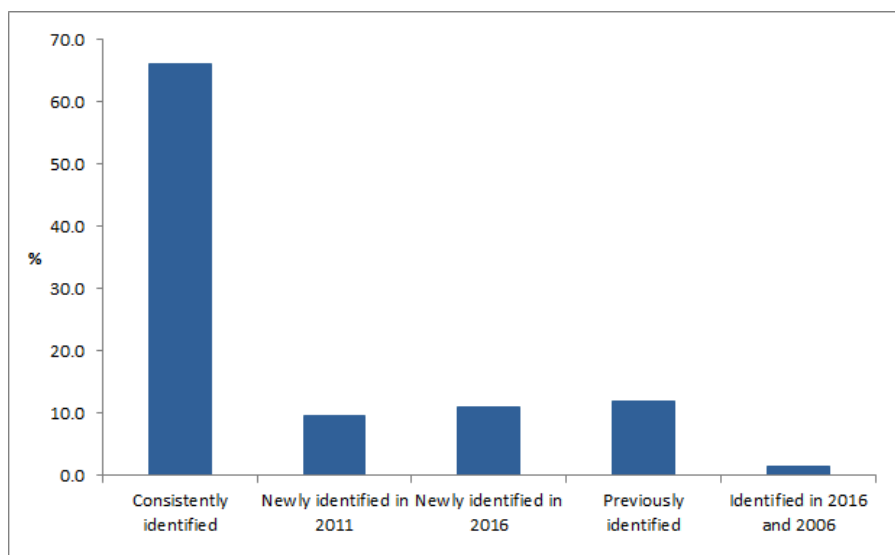
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- ⁴ Australian Institute of Health and Welfare and ABS 2012, *National best practice guidelines for data linkage activities relating to Aboriginal and Torres Strait Islander people*. AIHW cat. no. IHW 74. Canberra: AIHW.
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- ¹¹ Heard, G, Birrell, I, B & Khoo, S-E 2009, Inter-marriage between Indigenous and non- Indigenous Australians, *People and Place*, 17(1) pp. 1-14.
- ¹² Harris, M, Carlson, B & Poata-Smith, E T A 2013, Indigenous Identities and the Politics of Authenticity in Harris, M, Nakata, M and Carson, B (eds.) *The Politics of Identity: Emerging Indigeneity*, pp. 1-9, UTSePress, Broadway: NSW.

Overview of changing identification in the Census

OVERVIEW OF CHANGING IDENTIFICATION IN THE CENSUS

Two-thirds (66% or an estimated 453,000) of people who ever identified as Aboriginal and Torres Strait Islander between 2006 and 2016 have consistently identified. Similar proportions of people were newly identified in 2011, newly identified in 2016 or previously identified.

1.1 Consistency of identification as an Aboriginal and Torres Strait Islander person, 2006-2016(a)(b)



(a) Based on Indigenous status in 2016.

(b) Person aged 10 years and over in 2016.

For further detail, see Table 1 in the data cube titled 'ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time'

Note: Cells in this graph have been randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: ABS 2019, Microdata: Australian Census Longitudinal Dataset, ACLD, cat no. 2080.0, ABS Canberra

Of the estimated 76,000 people who were newly identified in 2016:

- Almost all (95%) identified as non-Indigenous in 2006 and 2011
- 4% identified as either non-Indigenous or did not provide their Indigenous status in 2006 or 2011
- A very small proportion (1%) did not provide their Indigenous status in 2006 and 2011.

Of the estimated 66,000 people who were newly identified in 2011:

- Most (90%) identified as non-Indigenous in 2006
- The remainder did not provide their Indigenous status in 2006.

Of the estimated 82,000 people who were previously identified:

- 47% identified as Aboriginal and Torres Strait Islander in 2006 only
- 26% identified as Aboriginal and Torres Strait Islander in 2011 only
- 27% identified as Aboriginal and Torres Strait Islander in 2006 and 2011.

Of the estimated 10,000 people who identified in 2016 and 2006:

- 80% identified as non-Indigenous in 2011
- The remainder did not provide their Indigenous status in 2011.

Given there was only a small proportion of people who identified in 2016 and 2006 (1.4% of people who ever identified), this group is only included in the total for the remainder of this article.

Changing identification by geography

CHANGING IDENTIFICATION BY GEOGRAPHY

The states and territories with the highest proportions of consistently identified people were:

- Northern Territory (92%)
- Western Australia (76%)
- Queensland (69%)
- South Australia (68%).

These states and territories also had relatively low proportions of people who were newly identified.

The states and territories with the highest proportions of people who were newly identified in 2016 were:

- Victoria (17%)
- Australian Capital Territory (16%)

- New South Wales (15%)
- Tasmania (12%).

This aligns with the observed increase in Census counts in these states and territories between 2011 and 2016¹³ that could not be explained solely by demographic factors. These states and territories also have a higher proportion of Aboriginal and Torres Strait Islander people living in Major Cities and Regional areas than the states and territories with a high proportion of consistently identified people¹³.

3.1 Consistency of identification as an Aboriginal and Torres Strait Islander person by State/Territory, 2006-2016(a)(b)

	NSW	Vic.	Qld.	SA	WA	Tas.	NT	ACT	Australia(c)
	%								
Consistently identified	57.7	50.5	69.4	68.3	75.6	56.0	92.1	51.0	66.0
Newly identified in 2011	13.5	12.2	8.6	7.1	5.9	11.6	1.8	16.1	9.6
Newly identified in 2016	15.5	17.1	9.4	9.6	6.2	11.6	1.9	16.3	11.1
Previously identified	12.0	18.1	11.4	14.0	11.5	18.0	4.2	15.6	11.9
Total number of persons who have ever identified as Aboriginal and Torres Strait Islander(d)	227,773	53,122	186,340	37,145	86,697	26,435	61,913	6,657	686,493

(a) Persons aged 10 years and over in 2016.

(b) Place of Usual Residence in 2016.

(c) Includes Other Territories.

(d) Includes persons who identified in 2016 and 2006.

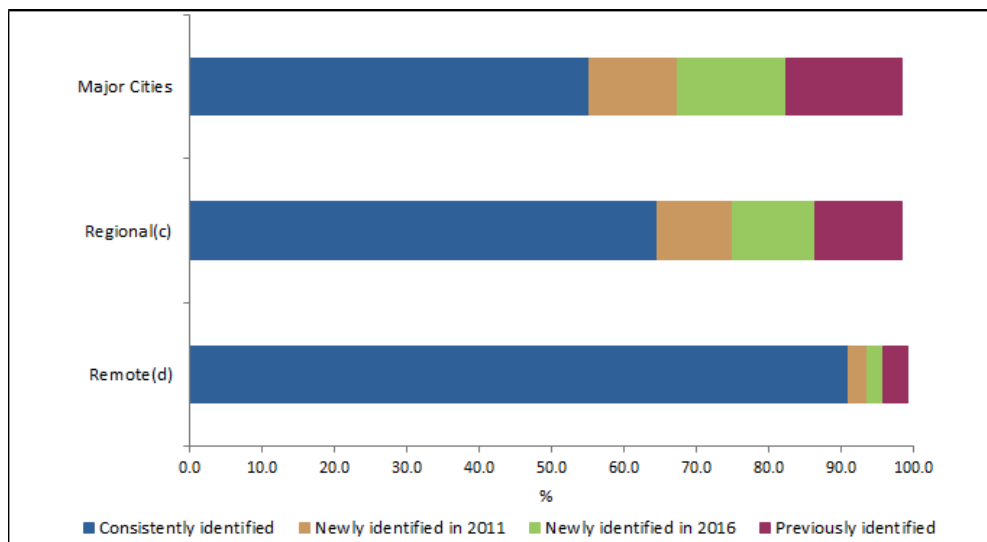
For further detail, see Table 2 in the data cube titled 'ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time'.

Note: Cells in this table have been randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: ABS 2019, Microdata: Australian Census Longitudinal Dataset, ACLD, cat no. 2080.0, ABS Canberra

People living in Major Cities in 2016 were the most likely to change their identification. Nearly half (45%) of people living in Major Cities who have ever identified as Aboriginal and Torres Strait Islander changed their identification between 2006 and 2016. In Regional Australia, 35% of people who have ever identified as Aboriginal and Torres Strait Islander changed their identification. This is consistent with observed increases in the count of Aboriginal and Torres Strait Islander people in Major Cities and Regional Australia in the 2011 and 2016 Censuses¹³.

3.2 Consistency of identification as an Aboriginal and Torres Strait Islander person by Remoteness area, 2006-2016(a)(b)



(a) Persons aged 10 years and over in 2016.

(b) Place of Usual Residence in 2016.

(c) Includes Inner Regional Australia and Outer Regional Australia.

(d) Includes Remote Australia and Very Remote Australia.

For further detail, see Table 3 in the data cube titled 'ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time'.

Note: Cells in this graph have been randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: ABS 2019, Microdata: Australian Census Longitudinal Dataset, ACLD, cat no. 2080.0, ABS Canberra.

The three wave ACLD can be used to shed light on whether people moved between remoteness areas over 2006 to 2016. Most people stayed in the same remoteness area, irrespective of whether they were consistently identified (85%) or if they changed their identification (82%).

Overall an estimated 110,600 people who have ever identified as Aboriginal and Torres Strait Islander moved between

remoteness areas over 2006 to 2016. People who were consistently identified, newly identified in 2011 and newly identified in 2016 moved to Major Cities and Regional Australia in similar proportions.

The migration movements of previously identified people however show some interesting patterns. Almost half (48%) of previously identified people moved to Major Cities, most of whom previously lived in Regional Australia.

3.3 Consistency of identification as an Aboriginal and Torres Strait Islander person by Remoteness area moved to, 2006-2016(a)(b)

Remoteness area moved to by 2016	Consistently identified	Newly identified in 2011	Newly identified in 2016	Previously identified	Total persons who have ever identified as Aboriginal and Torres Strait Islander(c)
	%				
Moved to Major Cities	39.2	38.5	41.4	48.5	40.6
Moved to Regional(d)	42.0	45.7	43.5	34.8	41.7
Moved to Remote(e)	17.0	13.4	11.1	7.2	14.7
Total number of persons who moved Remoteness areas(f)	69,241	11,997	12,873	14,467	110,553
Total number of persons who have ever identified as Aboriginal and Torres Strait Islander	453,002	66,041	75,945	81,506	686,493

(a) Persons aged 10 years and over in 2016.

(b) Place of Usual Residence in 2016.

(c) Includes persons who identified in 2016 and 2006.

(d) Includes Inner Regional Australia and Outer Regional Australia.

(e) Includes Remote and Very remote Australia.

(f) Includes people who moved to/from a migratory-offshore-shipping or no usual address area.

For further detail, see Table 4 in the data cube titled 'ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time'.

Note: Cells in this table have been randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: ABS 2019, Microdata: Australian Census Longitudinal Dataset, ACLD, cat no. 2080.0, ABS Canberra.

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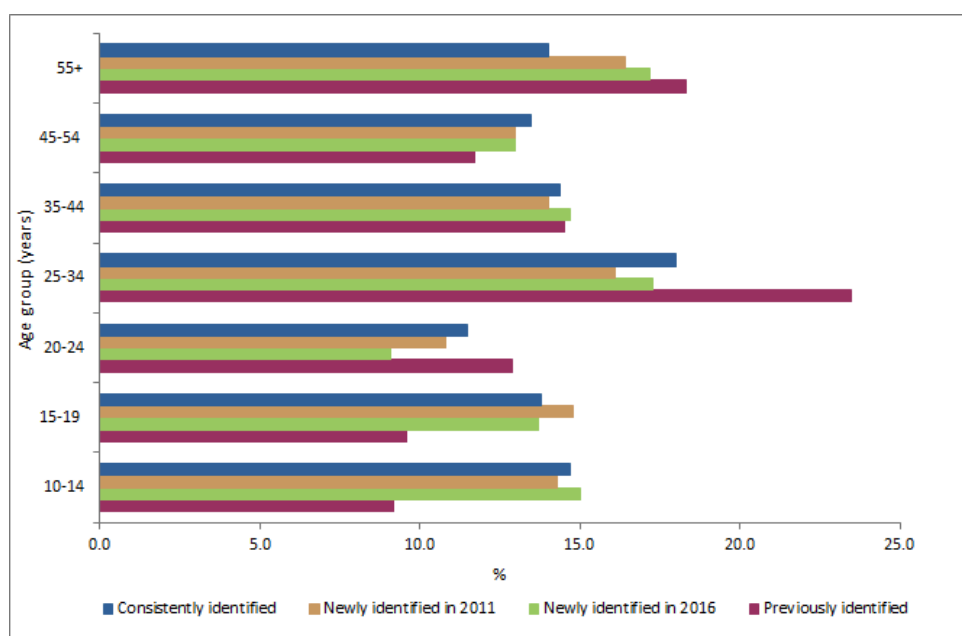
¹³ ABS 2018, *Census of Population and Housing: Understanding the Increase in Aboriginal and Torres Strait Islander Counts, 2016*, cat. no. 2077.0, ABS, Canberra.

Changing identification by age

CHANGING IDENTIFICATION BY AGE

Overall, the age distribution of consistently identified people was similar to those who were newly identified in 2011 and those who were newly identified in 2016. Previously identified people however had a different age distribution, with relatively less children and teenagers, and more 25-34 year olds, than consistently and newly identified people.

4.1 Consistency of identification as an Aboriginal and Torres Strait Islander person by age group, 2006-2016(a)



(a) Based on a person's age in 2016.

For further detail, see Table 5 in the data cube titled 'ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time'.

Note: Cells in this graph have been randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: ABS 2019, Microdata: Australian Census Longitudinal Dataset, ACLD, cat no. 2080.0, ABS Canberra.

A person's identification as an Aboriginal and Torres Strait Islander person can change at various points throughout their life (also referred to as life course identification¹⁴). These changes can be in response to shifting social or personal circumstances^{15,16} or as people make decisions about their lives and how they choose to identify in various contexts as they transition through childhood, adolescence and adulthood¹⁷. There is some evidence in the three wave ACLD of changes in identification as people age. These findings are consistent with similar research conducted using the 2006-2011 and 2011-2016 ACLD^{15,18,19}.

Children and teenagers most likely of all age groups to be consistently identified

- Children and teenagers aged 10-19 years in 2016 made up 29% of people who were consistently identified, newly identified in 2016 and people who were newly identified in 2011.
- This age group made up only 19% of previously identified people.

20-34 year olds over-represented amongst previously identified people

- The proportion of people who were newly identified in 2016 aged 20-24 years was only 9%, whereas this age group accounted for 12% of consistently identified people, and were slightly over-represented in previously identified people (13%).
- People aged 25-34 years in 2016 were also over-represented amongst previously identified people (24%).
- Tasmania had the highest proportion of previously identified people aged 20-34 years (42%) closely followed by Western Australia (41%), Queensland (39%), Victoria (36%) and New South Wales (34%).
- Almost half (47%) of all previously identified 20-34 year olds identified as Aboriginal and Torres Strait Islander in 2006 and as non-Indigenous in 2011 and 2016. The share of previously identified people with this pattern of identification was higher for 25-29 year olds (56%) and 30-34 year olds (58%) than 20-24 year olds (29%). 20-24 year olds were more likely to have identified as non-Indigenous in 2016 only (34%), than in both 2011 and 2016 (29%).

Minimal differences in identification change for people aged 35-54 years

- The proportion of newly identified people aged 35-44 years and 45-54 years was similar to those who were consistently identified, previously identified and those who were newly identified in 2011.

Lower proportion of consistently identified people aged 55 years and over

- There was a lower proportion of consistently identified people aged 55 years and over (14%) compared with those who were previously identified (18%), newly identified in 2016 (17%) and those who were newly identified in 2011 (16%).
- The observations from the three wave ACLD for this age group are consistent with previous analysis of this age group in the 2006-2011 ACLD¹⁰.

INDIGENOUS STATUS OF PARENTS AND GUARDIANS

The three wave ACLD suggests that changes in the Indigenous status of children and teenagers may be linked to changes in the Indigenous status of their parent or guardian. When interpreting data on the Indigenous status of a child's parent or guardian, it is important to consider that a child may not have the same parent or guardian in each Census, but this aspect cannot be differentiated in the data. Additionally, the Census and the ACLD cannot be used to explain why the changes outlined above are occurring as neither data set collects information on people's reasons for how they responded to the Standard Indigenous Question (SIQ).

For children aged 10-14 years in 2016 who have ever identified as Aboriginal and Torres Strait Islander:

- Nearly half (47%) had at least one consistently identified parent or guardian.
- A quarter (25%) had a parent or guardian who identified as Aboriginal and Torres Strait Islander in 2016 but had not identified in 2006 and/or 2011.

Change over time in the Indigenous status of these children appears to correspond to changes in the Indigenous status of their parent or guardian (including couple and lone parents):

- Nearly two-thirds (64%) of consistently identified children had at least one consistently identified parent or guardian.
- Of children who were newly identified in 2016, 65% had a parent or guardian who identified as Aboriginal and Torres Strait Islander in 2016 and were not consistently identified (for example, a child with a non-Indigenous female parent/guardian and a newly identified male parent/guardian). A small proportion of children who were newly identified in 2016 (9%) had parents or guardians who were also all newly identified in 2016.
- Two-thirds (66%) of previously identified children had at least one previously identified parent or guardian. A further 27% did not have a parent or guardian who identified as Aboriginal and Torres Strait Islander.
- Just under half (47%) of children who were newly identified in 2011 had a parent or guardian who identified as Aboriginal and Torres Strait Islander in 2016 and had changed their Indigenous status in 2011 and/or 2006. A further 11% had parents or guardians who were also all newly identified in 2011.

INDIGENOUS STATUS OF SPOUSES AND PARTNERS

Just over two-thirds (67%) of people aged 25 years and over who have ever identified as Aboriginal and Torres Strait Islander had a non-Indigenous spouse or partner in 2016. This was substantially higher in Non-remote areas (81%) than Remote areas (21%) and for people whose Indigenous status changed between 2006 and 2016 (86%), compared to people who were consistently identified 57%).

The data also suggests that a person's Indigenous status may change depending on the Indigenous status of their current spouse or partner:

- 68% of people who were newly identified in 2016 with an Aboriginal and Torres Strait Islander spouse/partner in 2016 had a non-Indigenous spouse/partner in 2006.
- One in five (20%) previously identified people with a non-Indigenous spouse/partner in 2016 had an Aboriginal and Torres Strait Islander spouse/partner in 2006.

When interpreting data on the Indigenous status of spouses and partners, it is important to consider that the changes observed could be a result of one or both partners changing how they identify in the Census, a change in spouse or partner between Censuses, or other reasons not captured in the Census. The Census and the ACLD cannot be used to determine why the observed changes are occurring as it is not possible to determine if a person has the same spouse or partner in each Census. There is also limited research on the relationship between whether a person identifies as Aboriginal and/or Torres Strait Islander and the Indigenous status of their spouse or partner²⁰.

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¹⁴ ABS 2018, *Census of Population and Housing: Understanding the Increase in Aboriginal and Torres Strait Islander Counts, 2016*, cat. no. 2077.0, ABS, Canberra

¹⁵ Grumond E, Robitaille N & Senecal S 2015, Fuzzy Definitions and Demographic Explosion of Aboriginal Populations in Canada from 1986 to 2006 In: Simon P, Piché V, Gagnon A. (eds) *Social Statistics and Ethnic Diversity*. IMISCOE Research Series. Springer, Cham.

¹⁶ Biddle, N, Crawford, H 2015, *The changing Aboriginal and Torres Strait Islander population: Evidence from the 2006–11 Australian Census Longitudinal Dataset*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.

¹⁷ Bennet, B 2019, Developing Aboriginal identity as a light-skinned person In: Bennet, B & Green, S (eds.) *Our Voices. Aboriginal social work (second edition)*. Red Globe Press, London.

¹⁸ Biddle, N, & Markham, F 2018, *Indigenous identification change between 2011 and 2016: evidence from the Australian Census Longitudinal Dataset*, Centre for Aboriginal Economic Policy Research, Australian National University, Canberra.

¹⁹ ABS 2018, *Census of Population and Housing: Understanding the Increase in Aboriginal and Torres Strait Islander Counts, 2016*, cat. no. 2077.0, ABS, Canberra.

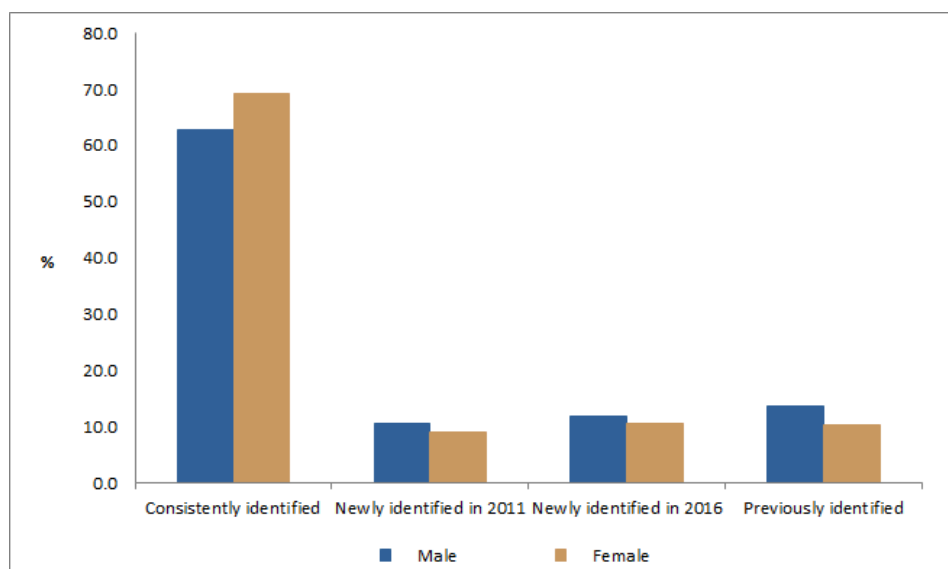
²⁰ New South Wales Aboriginal Education Consultative Group (NSW AECG) 2011, *Aboriginality and Identity: Perspectives, Practices and Policy*. Sydney: NSW AECG Inc.

Changing identification by sex

CHANGING IDENTIFICATION BY SEX

Overall, males were more likely than females to change identification. Over one-third (37%) of males who have ever identified as Aboriginal and Torres Strait Islander changed identification, compared to 31% of females who have ever identified as Aboriginal and Torres Strait Islander.

5.1 Consistency of identification as an Aboriginal and Torres Strait Islander person by sex, 2006-2016(a)



(a) Persons aged 10 years and over in 2016.

For further detail, see Table 9 in the data cube titled 'ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time'.

Note: Cells in this graph have been randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: ABS 2019, Microdata: Australian Census Longitudinal Dataset, ACLD, cat no. 2080.0, ABS Canberra.

However, within the group who changed their identification, there were some differences between males and females:

- Females were more likely than males to be newly identified in 2016 (34% compared to 31%).
- Males were more likely than females to be previously identified (37% compared to 33%).

5.2 Persons whose Indigenous status has changed by sex, 2006-2016(a)(b)

	Male	Female	Total
	%		
Newly identified in 2011	27.9	28.8	28.3
Newly identified in 2016	31.4	33.8	32.5
Previously identified	36.5	33.0	34.9
Total number of persons whose Indigenous status has changed(c)	124,092	109,344	233,547

(a) Persons aged 10 years and over in 2016.

(b) Excludes consistently identified persons.

(c) Includes persons who identified in 2016 and 2006.

Note: Cells in this table have been randomly adjusted to avoid the release of confidential data. Discrepancies may occur between sums of the component items and totals.

Source: ABS 2019, Microdata: Australian Census Longitudinal Dataset, ACLD, cat no. 2080.0, ABS Canberra.

Explanatory note 1: Changing Indigenous status in the 2006-2011-2016 ACLD

EXPLANATORY NOTE 1 - CHANGING INDIGENOUS STATUS IN THE 2006-2011-2016 ACLD

The table below presents all possible combinations of Indigenous status a person can have in the three wave ACLD. The data in the analysis of the three wave ACLD excludes people aged 0-9 years in 2016 as they do not have a 2006 Census record to be

linked to their 2011 or 2016 Census record in the three wave ACLD.

EN1. CHANGING INDIGENOUS STATUS IN THE THREE WAVE ACLD(a)

Indigenous status in 2016	Indigenous status in 2011	Indigenous status in 2006
CONSISTENTLY IDENTIFIED		
Aboriginal and Torres Strait Islander	Aboriginal and Torres Strait Islander	Aboriginal and Torres Strait Islander
NEWLY IDENTIFIED IN 2011		
Aboriginal and Torres Strait Islander	Aboriginal and Torres Strait Islander	Not stated
Aboriginal and Torres Strait Islander	Aboriginal and Torres Strait Islander	Non-Indigenous
NEWLY IDENTIFIED IN 2016		
Aboriginal and Torres Strait Islander	Non-Indigenous	Non-Indigenous
Aboriginal and Torres Strait Islander	Non-Indigenous	Not stated
Aboriginal and Torres Strait Islander	Not stated	Not stated
Aboriginal and Torres Strait Islander	Not stated	Non-Indigenous
PREVIOUSLY IDENTIFIED		
Non-Indigenous	Non-Indigenous	Aboriginal and Torres Strait Islander
Non-Indigenous	Not stated	Aboriginal and Torres Strait Islander
Non-Indigenous	Aboriginal and Torres Strait Islander	Not stated
Non-Indigenous	Aboriginal and Torres Strait Islander	Non-Indigenous
Non-Indigenous	Aboriginal and Torres Strait Islander	Aboriginal and Torres Strait Islander
Not stated	Non-Indigenous	Aboriginal and Torres Strait Islander
Not stated	Not stated	Aboriginal and Torres Strait Islander
Not stated	Aboriginal and Torres Strait Islander	Not stated
Not stated	Aboriginal and Torres Strait Islander	Non-Indigenous
Not stated	Aboriginal and Torres Strait Islander	Aboriginal and Torres Strait Islander
IDENTIFIED IN 2016 AND 2006		
Aboriginal and Torres Strait Islander	Non-Indigenous	Aboriginal and Torres Strait Islander
Aboriginal and Torres Strait Islander	Not stated	Aboriginal and Torres Strait Islander
CONSISTENTLY NON-INDIGENOUS		
Non-Indigenous	Non-Indigenous	Non-Indigenous
CONSISTENTLY NOT STATED		
Not stated	Not stated	Not stated
HAS NOT IDENTIFIED IN ANY CENSUS AND HAS CHANGED INDIGENOUS STATUS BETWEEN NON-INDIGENOUS AND NOT STATED		
Non-Indigenous	Non-Indigenous	Not stated
Non-Indigenous	Not stated	Not stated
Non-Indigenous	Not stated	Non-Indigenous
Not stated	Non-Indigenous	Non-Indigenous
Not stated	Non-Indigenous	Not stated
Not stated	Not stated	Non-Indigenous

(a) Based on Indigenous status in 2016.

Technical appendix: Identification as an Aboriginal and Torres Strait Islander person in the Census over time

PRODUCT OVERVIEW

The Australian Census Longitudinal Dataset (ACLD) is a 5% random sample of persons enumerated in Australia on each Census night linked together using statistical techniques.

THE 2006-11-16 THREE WAVE ACLD

The 2006-11-16 three wave ACLD is a representative sample of almost one million records from the 2006 Census (Wave 1) brought together with corresponding records from the 2011 Census (Wave 2) and the 2016 Census (Wave 3).

Record linking and panel sample

The 2006 Panel sample of records was originally linked to the 2011 Census and released in 2013. In the three wave ACLD, the 2006 Panel has been re-linked to the 2011 Census to take advantage of improved linking methodology since the initial release. At the completion of this linkage process, 756,945 (77%) of the 979,662 records from the 2006 ACLD Panel sample were linked to a 2011 Census record to create the linked 2006-2011 ACLD with an estimated precision of approximately 95%, or a false link rate of approximately 5%.

These record pairs were then linked to the 2016 Census via the 2011 Census record in each pair. Any 2006 Panel record which had not been successfully linked to a 2011 Census record was not given the opportunity to link to the 2016 Census. This achieved 605,618 links (80% of the 2011 records in the 2006 Panel) at an estimated 98.6% precision for a direct 2011-2016 linkage. 62% of links from the original 2006 Panel sample linked to both the 2011 and 2016 Censuses.

There are two main reasons why some records were not linked across Census files:

- Records belonging to the same individual were present at both time points but these records failed to be linked

because they contained missing or inconsistent information.

- The person had no record in the later Census. This can be because they were no longer in scope for the Census due to migration from Australia, or if there was a death between 2006 and 2016, or they may simply have been missed in the Census.

USING THE THREE WAVE ACLD FOR ABORIGINAL AND TORRES STRAIT ISLANDER POPULATION RESEARCH

There were 21,987 records identified as Aboriginal and/or Torres Strait Islander in the 2006 Panel sample, of which, 9,798 (44.6%) were linked across 2006, 2011 and 2016. Linkage rates were lowest for Aboriginal and Torres Strait Islander people living in the Northern Territory (33.1%) and Very Remote areas (35.3%) in 2006. These lower linkage rates are related to generally higher item non-response in the Census, and more variation across age, date of birth, address and name information for the Aboriginal and Torres Strait Islander population (with variation in name information applying to 2011-2016 linkage only).

In data linkage projects, geographic boundaries function as blocking variables that restrict the search for links to records which agree on the defined geography. They are also used as linking variables, and when combined with other linking fields (such as hashed name [2011-2016 only], age, sex and date of birth), they provide a high level of uniqueness, and reduce the likelihood of linking to an incorrect record. However, not every dwelling enumerated in the Census has a unique address, particularly dwellings in Very Remote areas which may only have a name for the community. This means other blocking variables may be used to link records in the ACLD with consequential impacts on linkage rates for these records.

While the ACLD is weighted to be representative of the Aboriginal and Torres Strait Islander population, the potential impact of missing links should be considered relative to the nature of the analysis being undertaken. Further, as explored in this article, a person's Indigenous status is not always consistent across time. Consequently, a person who did not identify as Aboriginal and/or Torres Strait Islander in 2006, but did in 2011 or 2016, will have a non-Indigenous or Indigenous status not stated record in the 2006 panel.

Weighting, benchmarking and estimation

Once a record was linked in the three wave ACLD, it was weighted to the population benchmark based on the 2011 and 2016 Estimated Resident Population (ERP), which is adjusted by the estimated probability a person belongs to the longitudinal population. This probability is formed using the Census reported address five year ago variable from the 2011 or 2016 Census.

The 2006-11-16 weights range between 15.9 and 341.3. The mean weight was higher for Aboriginal and Torres Strait Islander people (53.5) than non-Indigenous people (30.0). For both Aboriginal and Torres Strait Islander people and non-Indigenous people, the mean weight was higher for:

- Males
- People living in the Northern Territory
- People living in Very Remote Australia
- Young people aged 20-24 years

Where can I find more detail about linkage rates and weighting in the three wave ACLD?

Information about data linkage methodology used in the three wave ACLD and linkage results can be found in Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2006-2016 (ABS cat. no. 2080.5). Additional linkage results for the three wave ACLD are in Table 10 in the data cube titled '*ACLD 2006-2011-2016 Identification as an Aboriginal and Torres Strait Islander person in the Census over time*' available in the downloads tab.

Information about weighting can be found in the Explanatory Notes section of Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2006-2016 (ABS cat. no. 2080.5).

SOURCES OF ERROR IN THE ACLD

All reasonable attempts have been taken to ensure the accuracy of the longitudinal dataset. Nevertheless other potential sources of error, in addition to missed links, including sampling, linking and Census quality error should be kept in mind when interpreting the results.

The key sources of error are:

- Sampling Error
- Linking Accuracy
- Census data quality (includes respondent error, processing error, partial response and undercount)

Further information about these sources of error is available in Microdata: Australian Census Longitudinal Dataset, ACLD (ABS cat. no. 2080.0).

Why is it important to consider sources of error when looking at changes in Indigenous status over time?

As discussed in this article and others^{1,2,3}, Indigenous status is a self-reported measure collected through the Standard Indigenous Question (SIQ) – part of the ABS Indigenous Status Standard. This means a person's Indigenous status can change for any number of reasons and it is not unexpected to observe changes in a person's Indigenous status in a longitudinal dataset

such as the ACLD.

In the Census, the SIQ can be responded to by each person on the Census form or by any responsible adult who fills in the Census form on behalf of all household members (for example a parent may respond to the Census on behalf of their child). A person's Indigenous status in the Census can therefore reflect how they choose to identify themselves, or how a member of their household has identified them. Also, the mode of collection differs in Aboriginal and Torres Strait Islander communities and some remote areas, where tailored procedures are used to conduct the Census. In these locations, an interviewer household form is used and respondents complete the Census with a trained interviewer.

It is also possible that some of the changes in a person's Indigenous status in the three wave ACLD are a result of error (sampling error, linking accuracy and Census data quality). While the three wave ACLD has high linkage precision rates and two-thirds (66%) of people who have ever identified as Aboriginal and Torres Strait Islander in the three wave ACLD are consistently identified, it is important to consider the possibility of error when interpreting the data.

COMPARISONS TO THE 2006-2011 AND 2011-2016 ACLD AND THE CENSUS

The three wave ACLD contains data for records that were able to be linked across 2006, 2011 and 2016. This means data extracted from the three wave ACLD will be different to data extracted from the 2006-2011 and 2011-2016 ACLDs.

The three wave ACLD uses an enhanced linkage methodology that was also used in the 2011-2016 ACLD⁴. This enhanced methodology, combined with the cumulative effect of linkage rates, sources of error and variations in the Census overcount and undercount can contribute to differences when comparing data extracted from the 2006-2011, 2011-2016 and the 2006-2011-2016 ACLD. Users should therefore exercise caution in drawing comparisons between all available ACLD waves.

The cumulative effect of linkage rates, sources of error and variations in the Census overcount and undercount and the longitudinal weighting process of the ACLD also means that the ACLD is not strictly comparable with the Census. The weighting process for the three wave ACLD factors in the probability of a record being selected in the 2011 Panel sample, the probability of a record being linked, and estimates of Census overcount and undercount, whilst the Census does not. This will result in differences in estimates and proportions extracted from the ACLD to Census counts. Users should therefore exercise caution in drawing comparisons between the ACLD and the Census.

For further information on the above, see Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2006-2016 (ABS cat. no. 2080.5).

Where can I find further information about the impact of changes in Indigenous status on statistical datasets?

Endnote 1 suggests some resources that discuss the impact of changing Indigenous status on statistical datasets and the flow on effect to interpretation of data for Aboriginal and Torres Strait Islander people where Indigenous status is used as a data variable. Most of these resources relate to administrative datasets where changing Indigenous status can affect the quality and reliability of analysis.

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- ² ABS 2013, *Information Paper: Perspectives on Aboriginal and Torres Strait Islander Identification in Selected Data Collection Contexts, 2012*, cat. no. 4726.0, ABS, Canberra.
- ³ Australian Institute of Health and Welfare & ABS 2012, *National best practice guidelines for data linkage activities relating to Aboriginal and Torres Strait Islander people*, AIHW cat. no. IHW 74. Canberra: AIHW.
- ⁴ Chipperfield, J, Brown J & Watson N 2017, The Australian Census Longitudinal Dataset: using record linkage to create a longitudinal sample from a series of cross-sections, *Australian & New Zealand Journal of Statistics*, 59(1), pp. 1-16.

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Data Consistency

DATA CONSISTENCY

CONSISTENCY BETWEEN WAVES

The ACLD is a longitudinal dataset using data from successive Censuses.

While the 2006, 2011 and 2016 Censuses had predominantly the same questions and were processed in a similar way, there were some differences between them.

Users are encouraged to read Understanding the data pages in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0), and information in How Australia Takes a Census, 2011 (cat. no. 2903.0) and 2006 Census reference & information for information to assist with using and interpreting specific data items across time.

For example, a number of changes were made to how industry of employment information was collected for the 2016 Census. The ABS advises this data is not directly comparable to the previous Census Industry of employment data, and should not be used to measure longitudinal transitions between industries from 2011 to 2016. For further information refer to Industry of Employment (INDP) in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0).

There were widespread changes in the geography standard between 2006 and 2011 leading to the formation of the Australian Statistical Geographic Standard. In order to facilitate comparison, a 'best fit' of 2006 collection districts to align with the current geographic boundaries was created, however in some cases this will be an approximation only.

Other data items that are different between Census years are personal, family and household income. Income was collected in ranges and these ranges are different in different Census years. The ACLD does not include an adjustment to income data for inflation.

A small percentage of linked records have inconsistent data, such as a different country of birth at the different time points or an age inconsistency of more than one year. Inconsistencies may be due to:

- false link - the record pair does not belong to the same individual
- reporting error - information for the same individual was reported differently in 2006, 2011 and in 2016
- processing error - the value of a data item was inaccurately assigned or imputed during processing.

CONSISTENCY WITH OTHER SOURCES

Estimates derived from the ACLD may differ to those derived from other sources. This is due to a range of factors including:

Collection methodology

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Sampling and non-sampling error

While every effort is made to minimise error, each collection will have some level of error. Survey collections are subject to some level of sampling error, as they are based on information obtained from a sample of dwellings or businesses. The Census is not subject to this type of error, but is subject to some level of undercount. The ACLD is constructed using a sample of records from the Census, and is therefore subject to a level of sampling error of its own.

Scope and coverage

The ACLD weights benchmark the linked records to the longitudinal population that was in scope of consecutive Censuses. This will be different to cross-sectional estimates which may be benchmarked to a point-in-time population, such as the Estimated Resident Population.

Linkage error

The ACLD is subject to linkage error, as records from one Census are linked to corresponding records from the subsequent Census. While every effort is made to minimise false links, they can occur. Linkage error will not be apparent in other collections

which are not produced through data integration.

For these reasons, while the results from the ACLD are considered to be broadly representative of the Australian population, they are not strictly comparable with statistics derived from other collections.

For detailed information about the different methodologies for each collection, refer to the Explanatory Notes within each release.

For detailed information regarding the differences between the Census and Labour Force collections, refer to The 2016 Census and the Labour Force Survey in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0).

For further information about the ACLD linkage methodology refer to Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment, 2011-2016 (cat. no. 2080.5).

About this Release

The Australian Census Longitudinal Dataset (ACLD) uses data from the Census of Population and Housing to build a rich longitudinal picture of Australian society. The ACLD can uncover new insights into the dynamics and transitions that drive social and economic change over time, and how these vary for diverse population groups and geographies.

The ACLD is a random five per cent sample of the Australian population and three waves of data have so far contributed to the ACLD from the 2006 Census, 2011 Census and 2016 Census.

This analytical release highlights various journeys through life for Australians between 2006 and 2016. Areas of analysis include employment, education and housing transitions.

History of Changes

07/04/2020 - New analysis using the Australian Census Longitudinal Dataset 2006-2011-2016, about Australians who moved from renting to home ownership.

27/03/2020 - New analysis using the Australian Census Longitudinal Dataset 2006-2011-2016, about Australians who developed a profound or severe disability.

12/03/2020 - New analysis using the Australian Census Longitudinal Dataset 2006-2011-2016, about older Australians who continued working.

25/09/2019 - New analysis on identification as an Aboriginal and Torres Strait Islander person in the Census over time using the 2006-2011-2016 three wave ACLD.

05/12/2018 - Formatting changes to combine the two separate publications, *Australians' journey through life: Stories from the Australian Census Longitudinal Dataset, 2006-2011* and *Australians' journey through life: Stories from the Australian Census Longitudinal Dataset, 2011-2016*, into one publication.

07/03/2018 - Minor formatting improvements, minor text update to the bullet point referring to volunteer work under the infographics, a broken link corrected in the datacube. No changes to data.

07/09/2015 - This series of articles from the Australian Census Longitudinal Dataset has been updated to include the article, Housing transitions for older Australians.

Explanatory Notes

Glossary

GLOSSARY

Terms and definitions applicable to the ACLD can be located via the Census Dictionary Glossary. Additional information on data items is also available in the associated cell comment within the Data Items Lists available via the Downloads tab of Microdata: Australian Census Longitudinal Census Dataset (cat. no. 2080.0).

Quality Declaration

QUALITY DECLARATION

INSTITUTIONAL ENVIRONMENT

The Australian Census Longitudinal Dataset (ACL D) is released in TableBuilder and as a microdata product in the DataLab. Microdata files are released in accordance with the conditions specified in the Statistics Determination section of the Census and Statistics Act 1905. This ensures that confidentiality is maintained whilst enabling micro level data to be released. More information on the confidentiality practices associated with TableBuilder can be found in TableBuilder, User Guide (cat. no. 1406.0.55.005) on the Confidentiality page. To protect confidentiality of data within the DataLab, users are supervised at all times and must not bring mobile phones, cameras, USB keys, laptops, palm pilots or similar transmission or storage devices into the secure location. All outputs produced by users in DataLab are manually cleared for release after the session.

For information on the institutional environment of the Australian Bureau of Statistics (ABS), including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, see ABS Institutional Environment.

In April 2012, the ABS became an accredited Integrating Authority under the Commonwealth data integration interim arrangements. A copy of the accreditation claims made by the ABS, which have been verified by an independent auditor, is available through the National Statistical Service (NSS) website. The ABS only undertakes data integration for statistical and research purposes and where there is a strong public benefit in doing so.

RELEVANCE

Data for the Census of Population and Housing used in this product were collected on 8 August 2006, 9 August 2011 and 9 August 2016. The scope of the Census is all persons enumerated in Australia on Census night. The Census covers all areas in Australia and includes persons living in both private and non-private dwellings but excludes:

- diplomatic personnel of overseas governments and their families
- Australian residents overseas on Census Night and
- persons who expected to be usually resident in Australia for less than six months

Overseas visitors are excluded from the ACL D sample. Visitors within Australia to private and non-private dwellings on Census Night are included.

The Census collects information on demographics, income, labour force, unpaid work, dwelling characteristics and family and household relationships.

For more information, see 2006 Census data quality, How Australia Takes a Census, 2011 (cat. no. 2903.0), Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0), and the 2006, 2011 and 2016 issues of the Census Dictionary (cat. no. 2901.0).

TIMELINESS

The Census of Population and Housing is conducted every five years. For further information see 2006 Census data quality, How Australia Takes a Census, 2011 (cat. no. 2903.0) and Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0).

The first wave of Census data for the ACL D was from 2006, the second wave was from 2011, and the third wave was from 2016.

The 2011-2016 ACL D was released 18 months after the 2016 Census was conducted. This is approximately 10 months faster than the 2006-2011 ACL D release that occurred in December 2013.

ACCURACY

The 2006-2011 ACL D was created using data linkage techniques without name and address but with other characteristics from the Census. It was based on a 5% random sample from the 2006 Census (979,661 records) of which 82% (800,759) were linked to a 2011 Census record. False links can occur during the linkage process as even when a record pair matches on all or most linking fields, it may not actually belong to the same individual. While the methodology is designed to ensure that the vast majority of links are true, some are nevertheless false. The nature of the process used for the ACL D linkage means that while the links obtained are to a high degree of accuracy, some false links may be present within the ACL D dataset. The false link rate for the 2006-2011 ACL D is estimated at around 5-10%.

The 2011-2016 ACL D is a random 5% sample of persons enumerated in Australia on Census Night, 2011 which has been linked using statistical techniques to records from the 2016 Census. There is an estimated 1% false link rate in the 2011-2016 ACL D

Sampling error occurs because only a small proportion of the total population is used to produce estimates that represent the whole population. Sampling error refers to the fact that for a given sample size, each sample will produce different results, which will usually not be equal to the population value. There are two common ways of reducing sampling error - increasing sample size and/or utilising an appropriate selection method (for example, multi-stage sampling would be appropriate for household surveys). Given the large sample size for the ACL D (1 in 20 persons), and simple random selection, sampling error is minimal.

The ACL D sample was weighted to an estimate of the population that was resident in Australia during the relevant Censuses. The weights adjust for missed links and Census undercount.

Information on methodology, linkage quality and weighting can be found in Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment (cat. no. 2080.5).

Steps are taken to confidentialise the data made available on TableBuilder in such a way as to maximise the usefulness of the content while maintaining the confidentiality of respondents selected in the ACLD sample. As a result it may not be possible to exactly reconcile all the statistics produced from TableBuilder with other published statistics. Further information about the steps taken to confidentialise the microdata can be found in TableBuilder, User Guide (cat. no. 1406.0.55.005) on the Confidentiality page.

COHERENCE

A small percentage of linked records have inconsistent data, such as a different country of birth at the different time points or an age inconsistency of more than one year. Inconsistencies may be due to:

- false link - the record pair does not belong to the same individual
- reporting error - information for the same individual was reported differently in 2006, 2011 or 2016
- processing error - the value of a data item was inaccurately assigned or imputed during processing.

While the 2006, 2011 and 2016 Censuses had predominantly the same questions and were processed in a similar way, there were some differences between them. For example, a number of changes were made to how industry of employment information was collected for the 2016 Census. The ABS advises this data is not directly comparable to the previous Census industry of employment data, and should not be used to measure longitudinal transitions between industries from 2011 to 2016. For further information refer to Industry of Employment (INDP) in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0).

Notable data items that are different between Census years are personal, family and household income. Income was collected in ranges and these ranges are different in different Census years. The ACLD does not include an adjustment to income data for inflation.

For more information on the differences between the 2006, 2011 and 2016 Census see What's New for 2011? and What's New for 2016?

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For detailed information regarding Census data, including changes to Census questions and data quality statements for each Census data item, refer to Understanding the data in Census of Population and Housing: Understanding the Census and Census Data, Australia, 2016 (cat. no. 2900.0).

INTERPRETABILITY

Detailed information on methodology, linkage quality and weighting can be found in Information Paper: Australian Census Longitudinal Dataset, Methodology and Quality Assessment (cat. no. 2080.5). The ABS publishes extensive information on historical Census Data Quality, and 2016 Census Data Quality.

ACCESSIBILITY

The Australian Census Longitudinal Dataset can be accessed through TableBuilder and the DataLab.

Microdata products are available to approved users. Users wishing to access the microdata should read the How to apply for Microdata web page, before applying for access by emailing microdata.access@abs.gov.au. Users should also familiarise themselves with information available via the Microdata Entry Page.

Any questions regarding access to microdata can be forwarded to microdata.access@abs.gov.au or phone (02) 6252 7714.